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CONSOLIDATED ANNUAL REPORT

on

State and Territorial Public Health Laboratories

Fiscal Year 1978

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333

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April 1979

A Collaborative Compilation

by the

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Center for Disease Control
Bureau of Laboratories
Atlanta, Georgia 30333

and the

Association of State and Territorial
Public Health Laboratory Directors

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ASSOCIATION OF STATE AND TERRITORIAL
PUBLIC HEALTH LABORATORY DIRECTORS

1978 – 1979

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Preface

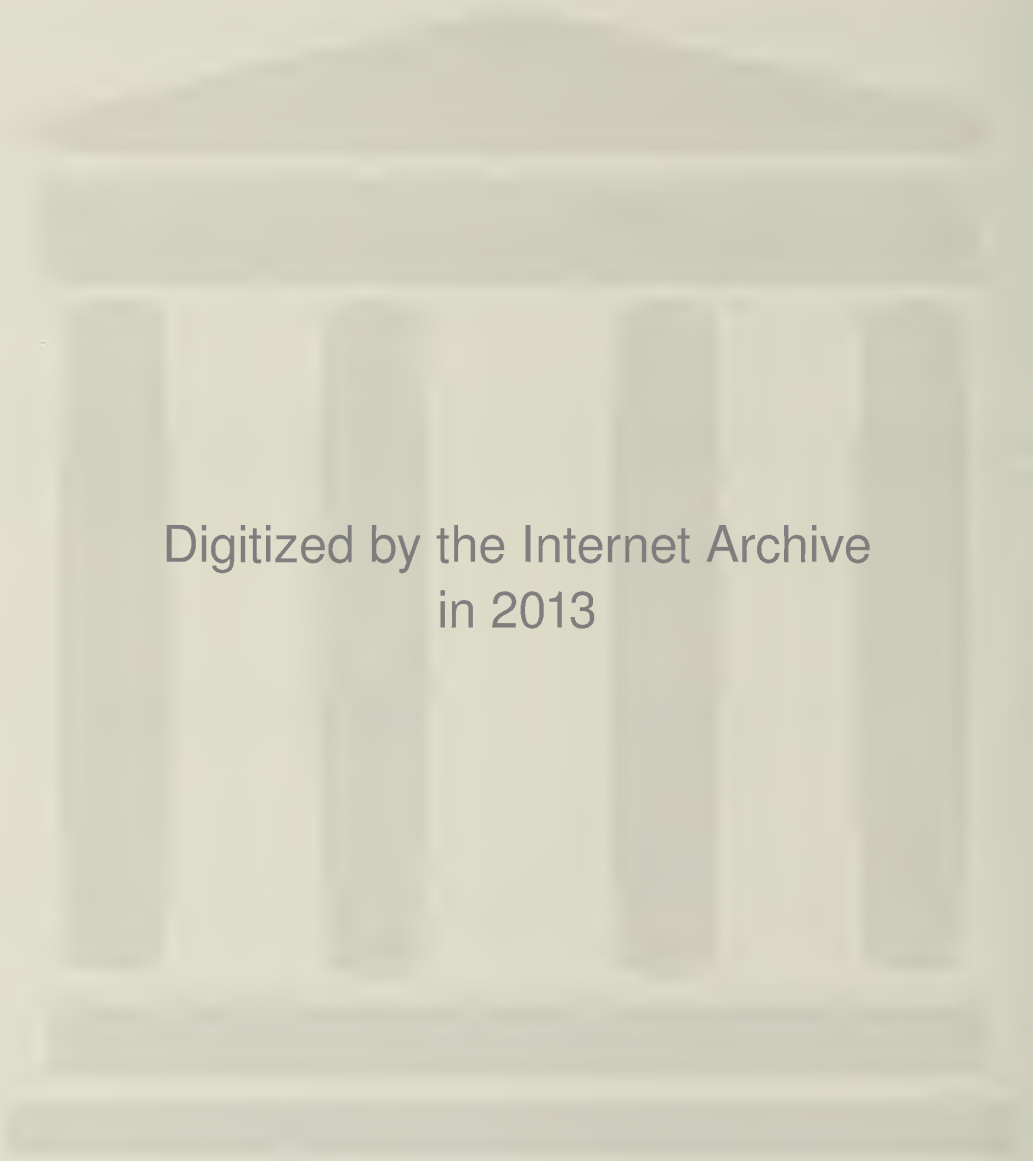
To Readers of the Consolidated Annual Report

The intent and purpose of the Consolidated Annual Report is to provide data for planning, management and evaluation to the members of the Association of State and Territorial Public Health Laboratory Directors.

Some readers have attempted to utilize the summary tables for comparison of specific state laboratories in relation to the national average and by rank. Comparisons were made as to expenditures, personnel, specimen load and services without studying the data in the detailed tables or consulting the state laboratory director. The conclusions reached were not valid as the comparisons were in error due to lack of knowledge of the state laboratory activities and budgetary system.

The CAR Committee strongly recommends that readers exercise caution when utilizing the summary tables in making comparisons between state laboratories and that the individual state laboratory director be consulted regarding the use of the comparative data.

Frank P. Pauls, Dr. P.H.
Chairman, CAR Committee



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INTRODUCTION

This, the fifteenth edition of the Consolidated Annual Report (CAR), provides quantitative information about laboratory personnel, expenditures, source of funds and services identified in fifteen workload areas. This information is provided by the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD). The ASTPHLD consists of the public health laboratories in each of the fifty states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

The primary intent of the CAR is to aid Association members in planning, evaluating, budgeting, and effecting legislative activity at the State level. Principal users of this reporting system are State and Territorial Laboratory Directors, State and Territorial Health Officers and the Center for Disease Control, Bureau of Laboratories.

Fifty-two of the fifty-four member laboratories provided data for this edition. Arkansas and New York did not report to the CAR for fiscal year 1978. Therefore, national totals found in this edition represent only fifty-two state and territorial public health laboratories.

The CAR deals with financial, personnel, and workload activities of the ASTPHLD. Therefore, this report understates the additional resources expended on public health laboratory services in nearly every state/territory having local health departments. It totally omits those funds expended for public health laboratory services by other state/territorial agencies. If some type of activity is not reported in this CAR for a given Association member, it may indicate that a state or territorial agency other than the public health laboratory performs that service.

The basic unit of study in the Workload Reporting Section of the CAR is the laboratory specimen/sample. This is defined by the ASTPHLD as any material received in the laboratory for testing in a workload category or sub-category or a material which is divided into aliquots for testing in multiple categories or sub-categories and is counted as one specimen for each category or sub-category. Specimens collected from the same site on the same patient (or same environmental sample) at the same time, are counted as one specimen in each category or sub-category in which it is tested.

The types of procedures routinely used (those tests performed as a standard operating procedure on a specimen or sample) in Association laboratories are identified by category and sub-category in the fifteen workload areas. The ASTPHLD provides workload data in this report only for those procedures routinely followed in their laboratories and excludes those procedures they are capable of performing but do not do on a routine basis.

To assure complete coverage of laboratory activities the questionnaire for the 1978 CAR was composed of four sections: (1) financial, (2) personnel, (3) workload reporting, and (4) special questions. The *Financial Section* requested data in three areas: (1) expenditure, (2) source of funds, and (3) allocations of expenditure data into workload categories. The *Personnel Section* requested the type and number of budgeted positions in five categories and defined these categories by turnover, vacancies and workload area. All budgeted positions are defined in terms of (FTE) full-time equivalent or man-year equivalent because the standard work week differs among reporting laboratories in terms of number of hours worked. The *Workload Reporting Section* requested specific data concerning routine laboratory procedures and the number of specimens/samples tested under each procedure. The *Special Questions Section* requested information concerning current organizational structure, laboratory applications of electronic data processing, and scientific services activities.

NOTE: DATA COMPARISONS

Every attempt has been made to ensure the correctness of the raw data which are included in this report. However, because of the various accounting practices employed, a great diversity exists among Association laboratories. Therefore, the reader is advised to exercise great care in making comparative financial analysis without first consulting the laboratory director involved.

USE OF SYMBOLS AND TERMS

Basically, the data display format is the same as that of the FY 1977 CAR. The following matrix identifies the symbols found in this edition.

SYMBOL	MEANING AND PURPOSE
*, #	Footnote
–	A report with no activity for that particular item
X	A positive response

The term "specimen" indicates an animal or human source, while "sample" indicates an environmental source; however, in Tables 1-2 through 1-5 the term "specimens" refers to both human sources and environmental samples. Average is the total divided by the number of participating laboratories reporting activity in a given category or sub-category.

PUBLICATION

The CAR was initiated by the ASTPHLD in 1963. The report is designed to provide comprehensive data concerning state and territorial laboratories to the ASTPHLD.

The Consolidated Annual Report is a joint activity of the ASTPHLD and the CDC, Bureau of Laboratories. Because it is compiled by CDC personnel all comments, suggestions, and correspondence on its contents should be forwarded to:

Center for Disease Control
Attn: CAR Editor
Laboratory Management
Consultation Office, BL
Chamblee 29-9
Atlanta, Georgia 30333

SECTION I
SUMMARY TABLES

Table 1 - 1

SPECIMENS/SAMPLES RECEIVED BY THE STATE AND TERRITORIAL PUBLIC HEALTH LABORATORIES

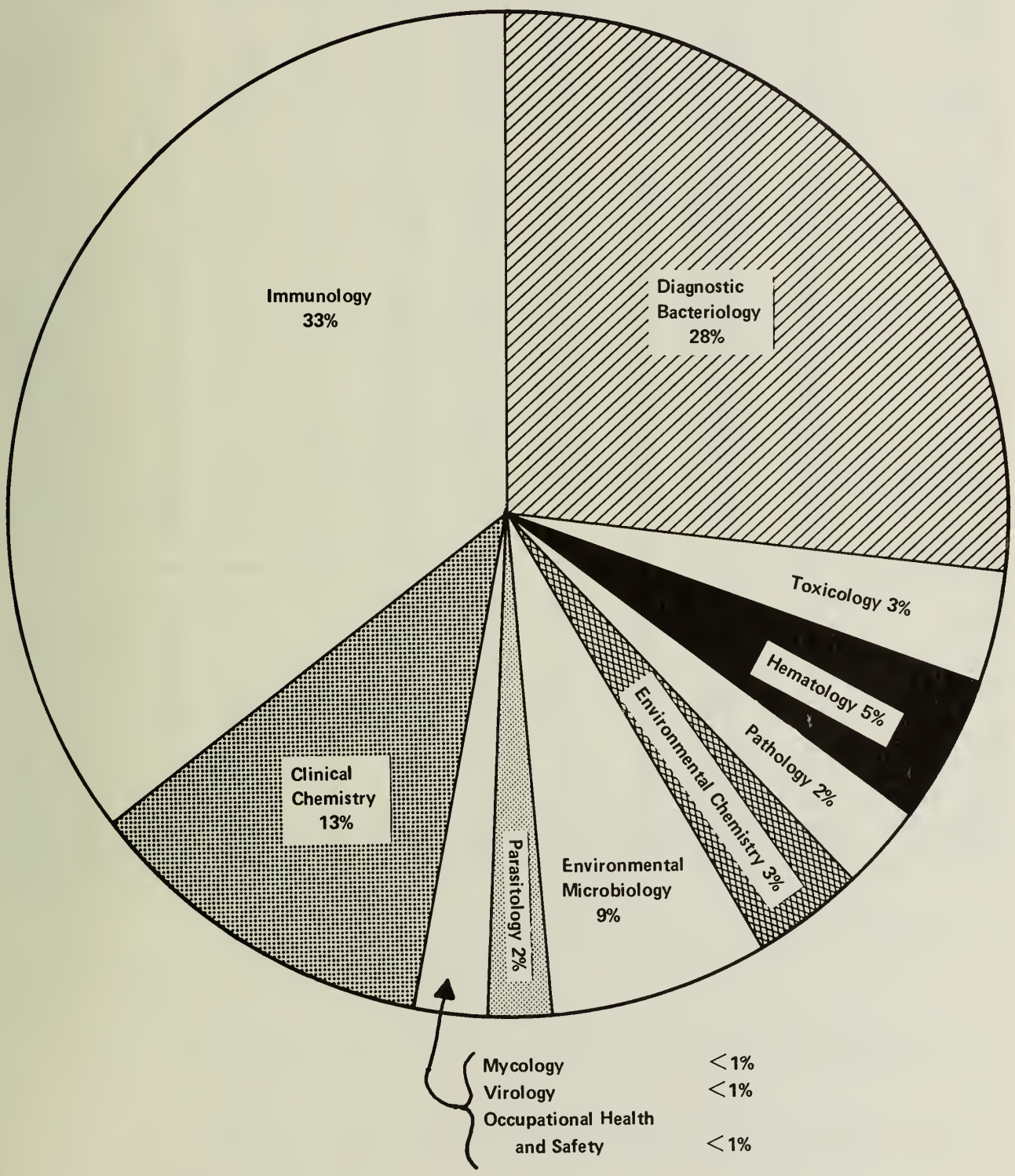

Table 1-2
SUMMARY OF LABORATORY EXPENDITURES, POSITIONS, AND SPECIMENS

Lab. & Region	Population X 1000	Expenditures		Leboratory Personnel						Specimans	
				Budgeted Positions			Budgeted Prof. & Tech. Positions				
		Total Leboratory	Expenditure Per Capita	Budgeted Positions	Positions To Population	Expenditure Per Position	Budgeted Positions	Positions To Populetion	Expenditure Per Position	Total Leb. Specimens	Specimens Per Capita
Total	**199,660**	**111,865,208**	**0.560**	**5900.4**	**1:33,838**	**18,959**	**3,596.0**	**1:55,523**	**31,108**	**26,158,863**	**0.131**
Average	3,840	2,151,254	–	113.5	–	–	69.2	–	–	503,055	–
New England	**12,244**	**11,485,976**	**0.938**	**663.1**	**1:18,465**	**17,322**	**397.4**	**1:30,810**	**28,903**	**2,129,946**	**0.174**
Conn.	3,108	3,811,134	1.226	224.1	1:13,869	17,006	140.4	1:22,137	27,145	578,627	0.186
Mass.	5,782	3,892,828	0.673	231.0	1:25,030	16,852	118.0	1:49,000	32,990	791,464	0.137
Me.	1,085	826,076	0.761	50.0	1:21,700	16,522	33.0	1:32,879	25,033	136,657	0.126
N.H.	849	372,032	0.438	22.0	1:38,591	16,911	14.0	1:60,643	26,574	162,517	0.191
R.I.	935	2,134,325	2.283	106.0	1:8,821	20,135	72.0	1:12,986	29,643	333,915	0.367
Vt.	486	449,581	0.927	30.0	1:16,167	14,986	20.0	1:24,250	22,479	126,766	0.261
Middle Atlantic	**19,114**	**6,739,367**	**0.353**	**319.0**	**1:59,918**	**21,127**	**199.0**	**1:96,050**	**33,866**	**874,617**	**0.046**
N.J.	7,329	4,195,867	0.573	216.0	1:33,931	19,425	146.0	1:50,199	28,739	764,975	0.104
N.Y.	–	–	–	–	–	–	–	–	–	–	–
Pa.	11,785	2,543,500	0.216	103.0	1:114,417	24,694	53.0	1:222,358	47,991	109,642	0.009
East North Central	**41,056**	**19,886,871**	**0.484**	**1,000.5**	**1:41,038**	**19,878**	**568.3**	**1:72,250**	**34,997**	**3,004,903**	**0.073**
Ill.	11,246	2,663,300	0.227	140.0	1:80,321	18,238	79.0	1:142,342	32,320	470,301	0.042
Ind.	5,330	2,325,963	0.436	93.0	1:57,312	25,010	62.0	1:85,968	37,515	171,218	0.032
Mich.	9,129	9,270,150	1.016	406.2	1:22,474	22,822	218.0	1:41,876	42,524	1,040,022	0.114
Ohio	10,701	2,789,688	0.261	188.0	1:66,920	14,839	122.0	1:87,713	22,866	696,288	0.065
Wisc.	4,661	2,947,780	0.634	173.3	1:26,846	17,015	87.3	1:63,307	33,785	627,074	0.136
West North Central	**16,884**	**8,013,709**	**0.475**	**419.4**	**1:40,258**	**19,108**	**258.4**	**1:65,341**	**31,013**	**2,058,388**	**0.122**
Ia.	2,879	2,661,477	0.921	106.0	1:27,160	25,014	68.0	1:42,338	38,992	447,851	0.156
Kans.	2,326	1,467,628	0.631	82.4	1:28,228	17,810	52.4	1:44,389	28,006	330,422	0.142
Minn.	3,976	1,493,069	0.376	88.6	1:44,915	16,871	47.0	1:84,574	31,767	514,642	0.130
Mo.	4,801	967,799	0.202	57.0	1:84,228	16,979	40.0	1:120,026	24,195	330,389	0.069
Nebr.	1,561	492,074	0.315	31.0	1:50,355	15,873	21.0	1:74,333	23,432	137,633	0.088
N.D.	663	665,120	0.850	31.5	1:20,730	17,623	17.0	1:38,412	32,654	192,573	0.296
S.D.	689	386,642	0.661	23.0	1:29,957	16,811	13.0	1:53,000	29,742	104,878	0.152
South Atlantic	**34,306**	**23,176,051**	**0.676**	**1,375.4**	**1:24,943**	**16,850**	**916.8**	**1:37,419**	**25,279**	**7,338,899**	**0.214**
Del.	582	520,234	0.894	33.0	1:17,636	16,765	22.0	1:26,465	23,647	146,953	0.253
D.C.	690	1,190,387	1.725	68.0	1:11,897	20,524	48.0	1:14,375	24,800	336,785	0.488
Fla.	8,462	4,812,518	0.569	249.0	1:33,944	19,327	159.0	1:53,157	30,267	2,001,368	0.237
Ga.	6,048	2,491,021	0.494	141.0	1:35,801	17,667	73.0	1:69,151	34,124	983,855	0.195
Md.	4,139	4,099,600	0.991	267.0	1:15,502	15,354	190.0	1:21,784	21,576	1,363,685	0.330
N.C.	6,526	2,462,601	0.446	146.0	1:37,842	16,867	94.0	1:58,777	26,198	917,310	0.166
S.C.	2,876	1,680,966	0.585	119.4	1:24,087	14,078	80.8	1:35,594	20,804	763,956	0.266
Va.	6,135	6,179,715	1.009	305.0	1:16,836	16,983	219.0	1:23,447	23,652	561,545	0.109
W. Va.	1,859	739,110	0.398	57.0	1:32,614	12,967	31.0	1:59,968	23,842	263,442	0.142
East South Central	**13,836**	**8,007,705**	**0.579**	**479.5**	**1:28,855**	**16,700**	**289.0**	**1:47,875**	**27,708**	**3,240,521**	**0.234**
Ala.	3,690	3,245,304	0.880	187.0	1:19,733	17,355	121.0	1:30,496	26,821	1,297,959	0.362
Ky.	3,468	1,883,348	0.546	79.6	1:43,497	23,690	63.0	1:65,245	36,535	307,489	0.089
Miss.	2,389	913,543	0.382	62.0	1:45,942	17,568	33.0	1:72,394	27,683	858,661	0.369
Tenn.	4,299	1,965,510	0.457	161.0	1:26,702	12,208	82.0	1:52,427	23,970	776,422	0.181
West South Central	**19,562**	**7,366,708**	**0.377**	**417.5**	**1:46,855**	**17,645**	**247.5**	**1:79,038**	**29,764**	**4,055,408**	**0.207**
Ark.	–	–	–	–	–	–	–	–	–	–	–
La.	3,921	2,071,462	0.528	156.0	1:25,135	13,279	71.0	1:55,225	29,176	719,113	0.183
Okla.	2,811	1,072,246	0.381	53.5	1:52,542	20,042	34.5	1:81,478	31,080	415,786	0.148
Tex.	12,830	4,223,000	0.329	208.0	1:61,683	20,303	142.0	1:90,362	29,739	2,920,509	0.228
Mountain	**10,030**	**8,222,387**	**0.820**	**411.9**	**1:24,351**	**19,962**	**243.0**	**1:41,276**	**33,837**	**1,807,364**	**0.180**
Ariz.	2,296	1,301,197	0.567	63.0	1:36,444	20,654	40.0	1:67,400	32,630	145,937	0.064
Colo.	2,619	1,423,000	0.543	71.0	1:36,887	20,042	36.0	1:72,750	39,528	521,196	0.199
Ida.	867	1,404,600	1.639	65.6	1:13,064	21,412	42.6	1:20,165	33,049	200,053	0.233
Mont.	761	337,334	0.443	30.5	1:24,961	11,060	21.0	1:36,238	16,064	91,217	0.120
Nev.	633	682,618	1.078	33.0	1:19,182	20,686	16.0	1:42,200	45,508	127,109	0.201
N.M.	1,190	1,396,200	1.172	70.0	1:17,000	19,931	39.0	1:30,613	35,774	284,809	0.239
Utah	1,268	1,309,263	1.033	64.0	1:19,813	20,467	39.5	1:32,101	33,146	195,280	0.154
Wyo.	406	369,185	0.909	14.8	1:27,432	24,945	10.0	1:40,600	36,919	241,763	0.598
Pacific	**29,232**	**17,921,138**	**0.613**	**662.2**	**1:44,147**	**27,065**	**375.7**	**1:77,817**	**47,707**	**1,331,780**	**0.046**
Alaska	407	1,375,000	3.378	39.0	1:10,436	36,266	13.0	1:31,308	105,769	189,278	0.466
Cal.	21,896	12,401,316	0.566	430.6	1:60,850	28,800	262.4	1:86,751	49,134	166,593	0.008
Hawaii	895	1,073,956	1.200	54.5	1:16,422	19,706	37.5	1:23,867	28,639	298,640	0.334
Ore.	2,376	1,309,545	0.651	59.1	1:40,237	22,177	37.8	1:62,940	34,690	504,209	0.212
Wash.	3,658	1,761,321	0.482	79.0	1:46,304	22,295	35.0	1:104,614	50,323	173,060	0.047
Territories	**3,396**	**1,045,296**	**0.308**	**152.0**	**1:22,342**	**6,877**	**101.0**	**1:33,624**	**10,349**	**317,037**	**0.093**
Guam	96	150,535	1.568	12.0	1:8,000	12,545	10.0	1:9,600	15,054	16,346	0.160
P.R.	3,206	783,600	0.246	136.0	1:23,566	5,761	87.0	1:36,839	9,006	268,254	0.081
V.I.	95	111,261	1.171	4.0	1:23,760	27,815	4.0	1:23,750	27,816	43,428	0.467

Table 1-3
NATIONAL RANKING OF STATE & TERRITORIAL PUBLIC HEALTH LABORATORIES BY EXPENDITURES, POSITIONS, AND SPECIMENS*

Rank	Expenditures				Laboratory Personnel												Specimens			
	Total Laboratory X1000		Expenditure Per Capita		Budgeted Positions						Budgeted Prof. & Tech. Positions						Total Lab. Specimens X1000		Specimens Per Capita	
					Budgeted Positions		Positions To Pop.		Expenditure Per Position		Budgeted Positions		Positions To Pop.		Expenditure Per Position					
	State	$	State	Ratio	State	#	State	Ratio (X1000)	State	$	State	#	State	Ratio (X1000)	State	$	State	#	State	Ratio
Total		**111,865**		**0.560**		**5,900.4**		**1:34**		**18,959**		**3,596.0**		**1:56**		**31,108**		**26,159**		**0.131**
Average		2,151		—		113.5		—		—		69.2		1:56		—		503		—
1	Cal.	12,401	Alaska	3.378	Cal.	430.6	Guam	1 8	Alaska	35,256	Cal.	252.4	Guam	1:10	Aleske	105,769	Tex.	2,921	Wyo.	0.596
2	Mich.	9,270	R.I.	2.283	Mich.	406.2	R.I.	1 9	Cal.	28,800	Va.	219.0	R.I.	1:13	Wash.	50,323	Fla.	2,001	D.C.	0.488
3	Va.	5,180	D.C.	1.725	Va.	305.0	Alaska	1 10	V.I.	27,815	Mich.	218.0	O.C.	1:14	Col.	49,134	Md.	1,364	Alaska	0.465
4	Fla.	4,813	Ida.	1.639	Md.	267.0	D.C.	1.12	Ia.	25,014	Md.	190.0	Ida.	1:20	Pe.	47,991	Ala.	1,298	V.I.	0.457
5	Tex.	4,223	Guam	1.568	Fla.	249.0	Ida.	1.13	Ind.	25,010	Fla.	159.0	Conn.	1 22	Nev.	45,508	Mich.	1,040	Miss.	0.359
6	N.J.	4,196	Conn.	1.226	Mass.	231.0	Conn.	1 14	Wyo.	24,945	N.J.	146.0	Md.	1:22	Mich.	42,524	Ga.	984	R.I.	0.357
7	Md.	4,100	Hawaii	1.200	Conn.	224.1	Md.	1 16	Pa.	24,694	Tex.	142.0	Va.	1.23	Colo.	39,528	N.C.	917	Ale.	0.352
8	Mass.	3,893	N.M.	1.172	N.J.	216.0	Vt.	1:16	Ky.	23,690	Conn.	140.4	Vt.	1.24	Ia.	38,992	Miss.	859	Hawaii	0.334
9	Conn.	3,811	V.I.	1.171	Tex.	208.0	Hawaii	1 16	Mich.	22,822	Ohio	122.0	Hawaii	1:24	Ind.	37,515	Mass.	791	Md.	0.330
10	Ala.	3,245	Nev.	1.078	Ohio	188.0	Va	1 17	Wash.	22,295	Ala.	121.0	V.I.	1:24	Wyo.	36,919	Tenn.	776	N.D.	0.295
11	Wisc.	2,948	Utah	1.033	Ala.	187.0	N.M.	1:17	Dre.	22,177	Mass.	118.0	Del.	1:26	N.M.	35,774	N.J.	765	S.C.	0.266
12	Ohio	2,790	Mich.	1.016	Wisc.	173.3	Del.	1.18	Ida.	21,412	N.C.	94.0	Ala.	1:30	Ky.	35,535	S.C.	764	Vt.	0.261
13	Ia.	2,651	Va.	1.009	Tenn.	161.0	Nev.	1 19	Nev.	20.685	Wisc.	87.3	N.M.	1:31	Ore.	34.690	La.	719	Dal.	0.253
14	Ill.	2,553	Md	0.991	La.	156.0	Ala.	1:20	Ariz.	20.654	P.R.	87.0	Alaska	1:31	Ga.	34,124	Ohio	696	N.M.	0.239
15	Pe.	2,544	Vt.	0.927	N.C.	146.0	Utah	1:20	D.C.	20,524	Tenn.	82.0	Utah	1:32	Wisc.	33,785	Wisc.	627	Fle.	0.237
16	Ga.	2,491	Ia.	0.921	Ga.	141.0	N.D.	1 21	Utah	20,457	S.C.	80.8	Me.	1:33	Utah	33,146	Conn.	578	Ida.	0.233
17	N.C.	2,463	Wyo.	0.909	Ill.	140.0	Me.	1:22	Tex.	20,303	Ill.	79.0	S.C.	1:36	Ida.	33,049	Va.	562	Tex.	0.228
18	Ind.	2,326	Del.	0.894	P.R.	136.0	Mich.	1.22	R.I.	20,135	Ga.	73.0	Mont.	1:36	Mass.	32,990	Colo.	521	Ore.	0.212
19	R.I.	2,134	Ala.	0.880	S.C.	119.4	P.R.	1:24	Okla.	20,042	R.I.	72.0	P.R.	1:37	N.O.	32,654	Minn.	515	Nev.	0.201
20	La	2,071	N.D.	0.850	Ia.	106.0	V.I.	1:24	Colo.	20,042	La.	71.0	N.D.	1:38	Ariz.	32,530	Ore.	504	Colo.	0.199
21	Tenn.	1,966	Me.	0.761	R.I.	106.0	S.C.	1:24	N.M.	19,931	Ia.	68.0	Wyo.	1:41	Ill.	32,320	Ill.	470	Ge.	0.195
22	Ky.	1,883	Mass.	0.673	Pa.	103.0	Mont.	1:25	Hawaii	19,706	Ind.	62.0	Mich.	1:42	Minn.	31,767	Ia.	448	N.J.	0.191
23	Wash.	1,761	Wisc.	0.634	Ind.	93.0	Mass.	1:25	N.J.	19,425	Pa.	53.0	Ia.	1:42	Okla.	31,080	Okla.	416	Conn.	0.186
24	S.C.	1,681	Kans.	0 631	Minn.	88.5	Le.	1:25	Fla.	19,327	Ky.	53.0	Nev.	1:42	Fla.	30.267	D.C.	337	La.	0.183
25	Minn.	1,493	S.C.	0.585	Kans.	82.4	Tenn.	1 27	Ill.	18,238	Kans.	52.4	Kans.	1:44	S.D.	29,742	R.I.	334	Tenn.	0.181
26	Kans.	1,468	N.J.	0.573	Ky.	79.5	Wisc.	1:27	Kans.	17,810	D.C.	48.0	Mass.	1:49	Tex.	29,739	Kans.	330	N.C.	0.166
27	Colo.	1,423	Fla.	0.569	Wash.	79.0	Ia	1 27	Ga.	17,667	Minn.	47.0	N.J.	1:50	R.I.	29,643	Mo.	330	Guam	0,160
28	Ida.	1,405	Ariz.	0.567	Colo.	71.0	Wyo.	1:27	N D.	17,623	Ida	42.5	Tenn.	1.52	La.	29,176	Ky.	307	Ia	0.156
29	N.M.	1,395	Cal.	0.566	N.M.	70.0	Kans.	1:28	Miss.	17,568	Mo.	40.0	Wisc.	1:53	N.J.	28,739	Haweii	299	Utah	0.154
30	Alaska	1,375	S.D.	0.561	Ida.	65.6	S.D.	1:30	Ala.	17,355	Ariz.	40.0	S.D.	1:53	Hawaii	28,639	N.M.	285	S.D.	0.152
31	Ore.	1,310	Ore.	0.551	Utah	64.0	W. Va.	1:33	Wisc.	17,015	Utah	39.5	Fla.	1:53	Kans.	28,006	W. Va.	263	Okla.	0.148
32	Utah	1,309	Ky.	0.545	Ariz.	63.0	N.J.	1.34	Conn.	17,006	N.M.	39.0	La.	1:55	V.I.	27,815	P.R.	258	Kans.	0.142
33	Ariz	1,301	Colo.	0.543	Ore.	59.1	Fla	1:34	Va	16,983	Ore	37.8	Ariz.	1:57	Miss.	27,683	Wyo.	242	W. Va.	0.142
34	D.C.	1,190	La.	0.528	D.C.	58.0	Ga.	1.36	Mo.	16,979	Hawaii	37.5	N.C.	1:59	Conn.	27,145	Ida.	200	Mass.	0.137
35	Haweii	1,074	Ga.	0.494	Mo.	57.0	Ariz.	1:36	N H	16,911	Colo.	36.0	W. Va.	1 60	Ala.	26,821	Uteh	195	Wisc.	0.135
36	Okla.	1,072	Wash.	0.482	W. Va.	57.0	Mont.	1:37	Minn.	16,871	Wash.	35.0	N.H.	1 61	N.H.	26,574	N.D.	193	Minn.	0.130
37	Mo.	968	Tenn.	0.457	Hawaii	54.5	N.C.	1 38	N.C.	16,867	Okla.	34.5	Ore.	1:63	N.C.	26,198	Alaska	189	Me.	0.126
38	Miss.	914	N.C.	0.446	Okla.	53.5	N.H	1 39	Mass	16,852	Me.	33.0	Ky.	1 65	Me.	25,003	Wash.	173	Mont.	0.120
39	Me.	826	Mont.	0.443	Miss.	52.0	Dra.	1 40	S.D.	16,811	Miss.	33.0	Ga.	1:69	D.C.	24,800	Ind.	171	Mich.	0.114
40	P.R.	784	N.H.	0.438	Me.	50.0	Ky.	1:43	Me.	16,522	W. Va.	31.0	Miss.	1:72	Mo.	24,195	Cal.	167	Ve.	0.109
41	W. Va.	739	Ind.	0.436	Alaska	39.0	Minn.	1 45	Nebr.	15,873	Dal.	22.0	Colo	1:73	Tenn.	23,970	N.H.	163	N.J.	0.104
42	Nev.	683	W. Va.	0.398	Del.	33.0	Miss.	1 46	Del.	15,765	Nebr.	21.0	Nebr.	1:74	W. Va.	23,842	Del.	147	Ky.	0.089
43	N.D.	555	Miss.	0.382	Nev.	33.0	Wash.	1.46	Md.	15,354	Mont.	21.0	Okla.	1 81	Va.	23,652	Ariz.	146	Nebr.	0.088
44	Dal.	520	Okla	0.381	N.D.	31.5	Nabr.	1.50	Vt.	14,986	Vt.	20.0	Minn.	1 85	Del.	23,647	Nebr.	138	P.R.	0.081
45	Nabr	492	Minn.	0.376	Nebr.	31.0	Cal.	1:51	Ohio	14,839	N.D	17.0	Ind.	1 86	Nebr.	23,432	Me.	137	Mo.	0.069
46	Vt.	450	Tex.	0.329	Mont.	30.5	Okla.	1 53	S.C.	14,078	Nev.	15.0	Cal.	1 87	Ohio	22,866	Vt.	127	Ohio	0.065
47	S.D.	387	Nebr.	0.315	Vt	30.0	Ohio	1 57	La	13,279	N H	14.0	Dhio	1 88	Vt	22,479	Nev.	127	Ariz.	0.064
48	N.H.	372	Ohio	0.261	S.D.	23.0	Ind.	1 57	W. Va	12,967	S.D.	13.0	Tex	1 90	Md.	21,576	Pa.	110	Wash.	0.047
49	Wyo.	369	P.R	0.245	N.H.	22.0	Tex.	1.62	Guam	12,545	Alaska	13 0	Wash.	1 105	S.C.	20.804	S.D.	105	Ill.	0.042
50	Mont.	337	Ill.	0.227	Wyo.	14.8	Ill.	1 80	Tenn.	12,208	Wyo	10.0	Mo.	1.120	Mont.	16,064	Mont.	91	Ind.	0.032
51	Guam	151	Pa.	0.216	Guam	12.0	Mo.	1 84	Mont	11,060	Guam	10.0	Ill.	1.142	Guam	15,054	V.I.	43	Pa.	0.009
52	V.I.	111	Mo.	0.202	V.I.	4 0	Pa	1 114	P R	5,761	V.I.	4 0	Pa	1 222	P.R.	9,006	Guam	15	Cal.	0.008

*National averages indicated by underlining.

Table 1-4

INTER-REGIONAL RANKING OF STATE AND TERRITORIAL PUBLIC HEALTH LABORATORIES BY EXPENDITURES, POSITIONS, AND SPECIMENS

Rank	Expenditures				Laboratory Personnel												Specimens			
	Total Laboratory X1000		Expenditure Per Capita		Budgeted Positions						Budgeted Prof. & Tech. Positions						Total Lab. Specimens X1000		Specimens Per Capita	
					Budgeted Positions		Positions To Pop.		Expenditure Per Position		Budgeted Positions		Positions To Pop.		Expenditure Per Position					
	State	$	State	Ratio	State	=	State	Ratio (X1000)	State	$	State	=	State	Ratio (X1000)	State	$	State	=	State	Ratio
Total		**111,865**		**0.560**		**5,900.4**		**1:34**		**18,959**		**3,596.0**		**1:56**		**31,108**		**26,159**		**0.131**
Average		2,151				113 5						69.2						503		
New England		**11,486**		**0.938**		**663.1**		**1:18**		**17,322**		**397.4**		**1:31**		**28,903**		**2,130**		**0.174**
1	Mass	3,893	R I	2 283	Mass	231 0	R I	1 9	R I	20,135	Conn	140 4	R I	1 13	Mass	32,990	Mass	791	R I	0.357
2	Conn	3,811	Conn	1 226	Conn	224 1	Conn	1 14	Conn	17,006	Mass	118 0	Conn	1 22	R I	29,643	Conn.	578	Vt	0 261
3	R I	2,134	Vt	0 927	R I	106 0	Vt	1 16	N H	16,911	R I	72 0	Vt	1 24	Conn.	27,145	R I	334	N H	0 191
4	Me	826	Me	0 761	Me	50 0	Me	1 22	Mass	16,852	Me	33 0	Me	1 33	N H	26,574	N H	163	Conn.	0.186
5	Vt	450	Mass	0 673	Vt	30 0	Mass	1 25	Me	16,522	Vt	20 0	Mass	1 49	Me	25,033	Me	137	Mass	0 137
6	N H	372	N H	0 438	N H	22 0	N H	1 39	Vt	14,986	N H	14 0	N H	1 61	Vt	22,479	Vt	127	Ma	0.126
Middle Atlantic		**6,739**		**0.353**		**319.0**		**1:60**		**21,127**		**199.0**		**1:96**		**33,866**		**875**		**0.046**
1	N J	4,196	N.J.	0 573	N J	216 0	N J	1 34	Pa	24,694	N J.	146 0	N J	1 50	Pa	47,991	N.J.	765	N.J.	0.104
2	Pa	2,544	Pa	0.216	Pa	103 0	Pa	1 114	N J	19,425	Pa	53 0	Pa	1 222	N J.	28,739	Pa	110	Pa	0.009
–	N Y	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
East North Central		**19,887**		**0.484**		**1,000.5**		**1:41**		**19,878**		**568.3**		**1:72**		**34,997**		**3,005**		**0.073**
1	Mich	9,270	Mich.	1.016	Mich	406 2	Mich.	1 22	Ind	25,010	Mich	218 0	Mich	1 42	Mich.	42,524	Mich	1,040	Wisc	0 135
2	Wisc	2,948	Wisc.	0.634	Ohio	188.0	Wisc.	1 27	Mich.	22,822	Ohio	122.0	Wisc	1 53	Ind	37,515	Ohio	696	Mich.	0 114
3	Ohio	2,790	Ind.	0 436	Wisc	173.3	Ohio	1 57	Ill.	18,238	Wisc.	87.3	Ind	1 86	Wisc.	33,785	Wisc.	627	Ohio	0.065
4	Ill.	2,553	Ohio	0.261	Ill	140 0	Ind.	1 57	Wisc.	17,015	Ill	79 0	Ohio	1 88	Ill.	32,320	Ill.	470	Ill.	0.042
5	Ind	2,326	Ill	0.227	Ind	93 0	Ill.	1 80	Ohio	14,839	Ind	62 0	Ill.	1 142	Ohio	22,866	Ind	171	Ind	0.032
West North Central		**8,014**		**0.475**		**419.4**		**1:40**		**19,108**		**258.4**		**1:65**		**31,013**		**2,058**		**0.122**
1	Ia	2,651	Ia	0 921	Ia	106 0	N D	1 21	Ia	25,014	Ia	68 0	N D.	1 38	Ia	38,992	Minn	515	N.D.	0.295
2	Minn.	1,493	N.D	0 850	Minn.	88 5	Ia.	1 27	Kans.	17,810	Kans	52 4	Ia	1 42	N.D.	32,654	Ia.	448	Ia	0 156
3	Kans	1,468	Kans	0 631	Kans	82 4	Kans	1 28	N D	17,623	Minn.	47 0	Kans.	1 44	Minn.	31,767	Kans	330	S.D.	0.152
4	Mo	968	S D	0 561	Mo	57 0	S D.	1 30	Mo.	16,979	Mo.	40.0	S.D.	1 53	S D.	29,742	Mo.	330	Kans.	0.142
5	N D	555	Minn	0.376	N D	31 5	Minn	1 45	Minn.	16,871	Nebr.	21 0	Nebr.	1 74	Kans.	28,006	N D.	193	Minn.	0 130
6	Nebr	492	Nebr	0.315	Nebr	31 0	Nebr.	1 50	S D	16,811	N D	17 0	Minn	1 85	Mo.	24,195	Nebr.	138	Nebr.	0.088
7	S D	387	Mo	0.202	S D.	23 0	Mo.	1 84	Nebr.	15,873	S.D.	13.0	Mo	1 120	Nebr.	23,432	S.D.	105	Mo.	0.069
South Atlantic		**23,176**		**0.676**		**1,375.4**		**1:25**		**16,850**		**916.8**		**1:37**		**25,279**		**7,339**		**0.214**
1	Va	5,180	D C	1 725	Va	305 0	D.C.	1 12	D C.	20,524	Va	219 0	D C.	1 14	Ga	34,124	Fla.	2,001	D.C	0.488
2	Fla	4,813	Va	1.009	Md	267 0	Md.	1 16	Fla	19,327	Md.	190 0	Md	1 22	Fla.	30,267	Md.	1,364	Md.	0.330
3	Md	4,100	Md	0.991	Fla	249 0	Va	1 17	Ga	17,667	Fla	159 0	Va	1 23	N.C.	26,198	Ga	984	S.C.	0.266
4	Ga	2,491	Del.	0 894	N C	146 0	Del	1 18	Va	16,983	N C.	94 0	Del.	1 26	D.C.	24,800	N C.	917	Del.	0.253
5	N C	2,463	S.C.	0 585	Ga	141 0	S.C	1 24	N.C.	16,867	S C	80 8	S C	1 36	W Va	23,842	S.C.	764	Fla	0.237
6	S.C	1,681	Fla	0 569	S.C.	119 4	W Va	1 33	Del.	15,765	Ga	73.0	Fla	1 53	Va.	23,652	Va.	562	Ga.	0.195
7	D C	1,190	Ga	0 494	D C	58.0	Fla	1 34	Md.	15,354	D.C.	48.0	N C	1 59	Del.	23,647	D.C.	337	N.C.	0.166
8	W Va	739	N C	0 446	W. Va	57 0	Ga	1 36	S.C	14,078	W Va	31.0	W Va	1 60	Md.	21,576	W. Va.	263	W. Va.	0.142
9	Del	520	W Va	0.398	Del.	33 0	N C	1 38	W Va	12,967	Del	22 0	Ga	1 69	S.C.	20,804	Dal.	147	Va	0.109
East South Central		**8,008**		**0.579**		**479.5**		**1:29**		**16,700**		**289.0**		**1:48**		**27,708**		**3,241**		**0.234**
1	Ala	3,245	Ala	0 880	Ala	187 0	Ala	1 20	Ky	23,690	Ala	121 0	Ala.	1 30	Ky.	35,535	Ala	1,298	Miss.	0.359
2	Tenn	1,966	Ky	0 545	Tenn.	161 0	Tenn.	1 27	Miss	17,568	Tenn.	82.0	Tenn	1 52	Miss	27,683	Miss.	859	Ala	0.352
3	Ky	1,883	Tenn	0 457	Ky.	79 5	Ky	1 43	Ala	17,355	Ky	53.0	Ky	1 65	Ala	26,821	Tenn.	776	Tenn.	0.181
4	Miss	914	Miss	0 382	Miss	52 0	Miss	1 46	Tenn	12,208	Miss	33 0	Miss	1 72	Tenn	23,970	Ky.	307	Ky.	0.089
West South Central		**7,367**		**0.377**		**417.5**		**1:47**		**17,645**		**247.5**		**1:79**		**29,764**		**4,055**		**0.207**
1	Tex	4,223	La	0.528	Tex	208 0	La	1 25	Tex	20,303	Tex	142 0	La	1 55	Okla.	31,080	Tex.	2,921	Tex.	0.228
2	La	2,071	Okla	0.381	La	156 0	Okla	1 53	Okla	20,042	La.	71.0	Okla	1 81	Tex.	29,739	La	719	La.	0.183
3	Okla	1,072	Tex	0.329	Okla	53.5	Tex	1 62	La	13,279	Okla.	34.5	Tex	1 90	La.	29,176	Dkla.	416	Okla	0.148
–	Ark	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mountain		**8,222**		**0.820**		**411.9**		**1:24**		**19,962**		**243.0**		**1:41**		**33,837**		**1,807**		**0.180**
1	Colo	1,423	Ida	1.639	Colo	71.0	Ida	1 13	Wyo	24,945	Ida	42.5	Ida	1 20	Nev.	45,508	Colo.	521	Wyo.	0.596
2	Ida	1,405	N M	1 172	N M	70 0	N M	1 17	Ida	21,412	Ariz	40 0	N.M	1 31	Colo.	39,528	N M.	285	N.M.	0.239
3	N M	1,395	Nev	1 078	Ida	65 6	Nev	1 19	Nev.	20 685	Utah	39.5	Utah	1 32	Wyo.	36,919	Wyo.	242	Ida	0.233
4	Utah	1,309	Utah	1 033	Utah	64 0	Utah	1 20	Ariz.	20,654	N.M	39.0	Mont	1 36	N.M.	35,774	Ida.	200	Nev.	0.201
5	Ariz	1,301	Wyo	0 909	Ariz	63 0	Mont	1 25	Utah	20,457	Colo	36.0	Wyo.	1 41	Utah	33,146	Utah	195	Colo.	0.199
6	Nev	683	Ariz	0.567	Nev	33 0	Wyo	1 27	Colo.	20,042	Mont	21.0	Nev.	1 42	Ida	33,049	Ariz.	146	Utah	0.154
7	Wyo.	369	Colo	0 543	Mont	30 5	Ariz	1 36	N M	19,931	Nev	15 0	Ariz.	1 57	Ariz.	32,530	Nav	127	Mont.	0 120
8	Mont	337	Mont	0 443	Wyo.	14 8	Colo	1 37	Mont	11,060	Wyo.	10.0	Colo	1 73	Mont	16,064	Mont.	91	Ariz.	0.064
Pacific		**17,921**		**0.613**		**662.2**		**1:44**		**27,065**		**375.7**		**1:78**		**47,707**		**1,332**		**0.046**
1	Cal.	12,401	Alaska	3 378	Cal.	430 6	Alaska	1 10	Alaska	35,256	Cal.	252.4	Hawaii	1 24	Alaska	105,769	Ore.	504	Alaska	0.465
2	Wash.	1,761	Hawaii	1 200	Wash	79 0	Hawaii	1 16	Cal	28,800	Ore	37.8	Alaska	1 31	Wash.	50,323	Hawaii	299	Hawaii	0.334
3	Alaska	1,375	Cal	0.566	Ore	59.1	Ore	1 40	Wash.	22,295	Hawaii	37.5	Ore.	1 63	Cal.	49,134	Alaska	189	Ore.	0.212
4	Ore.	1,310	Ore.	0.551	Hawaii	54 5	Wash.	1 46	Ore	22,177	Wash.	35.0	Cal.	1 87	Ore.	34,690	Wash.	173	Wash.	0.047
5	Hawaii	1,074	Wash.	0.482	Alaska	39.0	Cal.	1 51	Hawaii	19,706	Alaska	13.0	Wash.	1:105	Hawaii	28,639	Cal.	167	Cal.	0.008
Territories		**1,045**		**0.308**		**152.0**		**1:22**		**6,877**		**101.0**		**1:34**		**10,349**		**317**		**0.093**
1	P.R.	784	Guam	1.568	P.R.	136.0	Guam	1 8	V.I.	27,815	P.R.	87.0	Guam	1:10	V.I.	27,815	P.R.	258	V.I.	0.457
2	Guam	151	V I	1.171	Guam	12 0	P.R.	1 24	Guam	12,545	Guam	10.0	V.I.	1 24	Guam	15,054	V.I.	43	Guam	0.160
3	V.I.	111	P R	0 245	V.I.	4 0	V.I.	1 24	P R	5,761	V.I	4.0	P.R.	1:37	P.R	9,006	Guam	15	P.R.	0.081

Table 1-5
SUMMARY OF LABORATORY SPECIMENS BY CATEGORY AND PERCENT OF CATEGORY TO TOTAL SPECIMENS

Lab & Region	Total No. of Spacimens	Diagnostic Bacteriology		Mycology		Parasitology		Virology		Immunology		Hematology		Clinical Chemistry		Pathology		Environmental Microbiology		Environmental Chemistry		Occupational Health/Safety		Toxicology	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
No. States Reporting	52	52		47		52		50		52		35		44		11		50		42		20		49	
Total	**26,158,863**	**7,524,578**	**28.8**	**52,172**	**0.2**	**404,104**	**1.5**	**215,932**	**0.8**	**8,730,640**	**33.4**	**1,271,961**	**4.9**	**3,459,804**	**13.2**	**531,361**	**2.0**	**2,433,493**	**9.3**	**709,296**	**2.7**	**51,549**	**0.2**	**773,973**	**3.0**
Average	503,055	144,703	–	1,110	–	7,771	–	4,319	–	167,897	–	36,342	–	78,632	–	48,306	–	48,670	–	16,888	–	2,577	–	19,349	–
New England	**2,129,946**	**651,503**	**30.6**	**2,480**	**0.1**	**14,528**	**0.7**	**15,697**	**0.7**	**552,949**	**26.0**	**16,727**	**0.8**	**448,484**	**21.1**	**2,038**	**0.1**	**91,701**	**4.3**	**86,126**	**4.0**	**3,836**	**0.2**	**243,877**	**11.4**
Conn.	578,627	161,725	27.9	1,675	0.3	10,365	1.8	10,440	1.8	119,921	20.7	15,002	2.6	120,579	20.8	2,038	0.4	25,278	4.4	25,232	4.4	3,172	0.5	83,200	14.4
Mass.	791,464	167,590	21.2	412	0.1	26	0.0	3,963	0.5	213,818	27.0	–	–	265,101	33.5	–	–	86	0.0	–	–	–	–	140,468	17.7
Me.	136,657	44,062	32.2	97	0.1	78	0.1	821	0.6	32,837	24.0	–	–	16,625	12.2	–	–	21,013	15.4	11,885	8.7	41	0.0	9,198	6.7
N.H.	162,517	96,355	59.3	47	0.0	1,099	0.7	254	0.2	43,115	26.5	–	–	21,566	13.3	–	–	–	–	–	–	–	–	81	0.0
R.I.	333,915	136,979	41.0	89	0.0	1,841	0.6	71	0.0	97,783	29.3	1,725	0.5	24,613	7.4	–	–	21,751	6.5	41,015	12.3	623	0.2	7,425	2.2
Vt.	126,766	44,792	35.3	160	0.1	1,119	0.9	148	0.1	45,475	35.9	–	–	–	–	–	–	23,573	18.6	7,994	6.3	–	–	3,505	2.8
Middle Atlantic	**874,617**	**251,638**	**28.8**	**1,659**	**0.2**	**3,354**	**0.4**	**14,543**	**1.7**	**220,572**	**25.2**	**617**	**0.1**	**162,020**	**18.5**	**14**	**0.0**	**14,490**	**1.6**	**17,798**	**2.0**	**–**	**–**	**187,912**	**21.5**
N.J.	764,975	225,036	29.4	1,406	0.2	3,055	0.4	13,045	1.7	213,904	28.0	–	–	93,096	12.2	14	0.0	14,358	1.9	17,798	2.3	–	–	183,263	23.9
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	109,642	26,602	24.3	253	0.2	299	0.3	1,498	1.4	6,668	6.1	617	0.6	68,924	62.8	–	–	132	0.1	–	–	–	–	4,649	4.2
East North Central	**3,004,903**	**972,233**	**32.3**	**8,843**	**0.3**	**12,208**	**0.4**	**49,762**	**1.7**	**840,412**	**28.0**	**48,520**	**1.6**	**417,732**	**13.9**	**115,883**	**3.9**	**350,901**	**11.7**	**138,407**	**4.6**	**9,272**	**0.3**	**40,730**	**1.3**
Ill.	470,301	196,282	41.7	1,420	0.3	943	0.2	9,273	2.0	146,500	31.1	–	–	–	–	–	–	61,390	13.1	41,897	8.9	–	–	12,596	2.7
Ind.	171,218	13,409	7.8	1,158	0.7	2,662	1.6	2,949	1.7	67,178	39.2	–	–	–	–	–	–	59,016	34.5	24,714	14.4	–	–	132	0.1
Mich.	1,040,022	384,410	36.9	2,368	0.2	3,919	0.4	3,474	0.3	338,665	32.6	15,226	1.5	177,820	17.1	–	–	93,486	9.0	20,654	2.0	–	–	–	–
Ohio	696,288	284,352	40.9	993	0.2	1,500	0.2	15,566	2.2	98,290	14.1	3,488	0.5	181,054	26.0	–	–	72,859	10.5	21,842	3.1	2,349	0.3	13,995	2.0
Wisc.	627,074	93,780	15.0	2,904	0.5	3,184	0.5	18,500	2.9	189,779	30.3	29,806	4.7	58,858	9.4	115,883	18.5	64,150	10.2	29,300	4.7	6,923	1.1	14,007	2.2
West North Central	**2,058,388**	**554,329**	**26.9**	**6,152**	**0.3**	**23,953**	**1.2**	**38,698**	**1.9**	**862,604**	**41.9**	**19,472**	**1.0**	**210,770**	**10.2**	**210**	**0.0**	**227,928**	**11.1**	**90,921**	**4.4**	**2,385**	**0.1**	**20,966**	**1.0**
Ia.	447,851	126,975	28.3	755	0.2	1,682	0.4	2,844	0.6	234,044	52.3	–	–	5,741	1.3	–	–	40,608	9.1	25,278	5.6	1,620	0.4	8,304	1.8
Kans.	330,422	78,089	23.6	881	0.2	5,493	1.7	2,227	0.7	118,334	35.8	–	–	48,571	14.7	–	–	47,714	14.4	25,315	7.7	765	0.2	3,233	1.0
Minn.	514,642	140,132	27.2	3,673	0.7	13,486	2.6	5,537	1.1	276,448	53.7	–	–	75,156	14.6	210	0.1	–	–	–	–	–	–	–	–
Mo.	330,389	97,213	29.4	506	0.2	1,346	0.4	2,486	0.8	80,681	24.4	6,908	2.1	60,405	18.3	–	–	74,301	22.5	6,093	1.8	–	–	450	0.1
Nebr.	137,633	26,454	19.2	12	0.0	603	0.4	598	0.4	57,619	41.9	–	–	2,946	2.2	–	–	25,355	18.4	15,103	11.0	–	–	8,943	6.5
N.D.	192,573	50,914	26.4	432	0.2	980	0.5	24,951	13.0	55,595	28.9	12,564	6.5	17,951	9.3	–	–	19,749	10.3	9,401	4.9	–	–	36	0.0
S.D.	104,878	34,552	32.9	93	0.1	363	0.3	55	0.1	39,883	38.0	–	–	–	–	–	–	20,201	19.3	9,731	9.3	–	–	–	–
South Atlantic	**7,338,899**	**1,925,506**	**26.2**	**11,097**	**0.2**	**135,394**	**1.8**	**33,301**	**0.5**	**2,421,522**	**33.0**	**538,073**	**7.3**	**1,091,318**	**14.9**	**397,634**	**5.4**	**499,731**	**6.8**	**133,600**	**1.8**	**15,405**	**0.2**	**136,318**	**1.9**
Del.	146,953	31,619	21.5	–	–	202	0.1	1,377	0.9	31,098	21.2	2,080	1.4	16,344	11.1	45,401	30.9	12,640	8.6	4,064	2.8	–	–	2,128	1.5
D.C.	336,785	93,741	27.8	–	–	297	0.1	40	0.0	101,641	30.2	56,105	16.7	46,152	13.7	17,649	5.2	1,045	0.3	419	0.1	–	–	19,696	5.9
Fla.	2,001,368	619,615	31.0	2,665	0.1	61,700	3.1	6,125	0.3	621,116	31.0	152,819	7.6	271,536	13.6	–	–	236,753	11.8	4,897	0.2	1,190	0.1	22,952	1.2
Ga.	983,855	273,525	27.8	1,009	0.1	2,481	2.4	3,880	0.4	493,385	50.2	51,513	5.2	90,200	9.2	–	–	157	0.0	–	–	52	0.0	46,653	4.7
Md.	1,363,685	406,751	29.8	2,398	0.2	8,444	0.6	4,885	0.4	413,317	30.3	99,664	7.3	185,753	13.6	76,674	5.6	92,689	6.8	55,171	4.0	7,729	0.6	10,210	0.8
N.C.	917,310	22,115	2.4	1,701	0.2	5,448	0.6	3,446	0.4	297,985	32.5	56,349	6.1	230,522	25.1	216,256	23.6	58,916	6.4	17,508	1.9	4,634	0.5	2,430	0.3
S.C.	763,956	242,167	31.7	1,630	0.2	20,079	2.6	6,659	0.9	247,741	32.4	85,550	11.2	128,155	16.8	–	–	13,992	1.8	8,904	1.2	–	–	9,079	1.2
Va.	561,545	141,999	25.3	1,135	0.2	13,127	2.4	1,225	0.2	167,612	29.9	33,168	5.9	80,505	14.3	–	–	55,167	9.8	42,637	7.6	1,800	0.3	23,170	4.1
W. Va.	263,442	93,974	35.7	559	0.2	2,616	1.0	5,664	2.1	47,627	18.1	825	0.3	42,151	16.0	41,654	15.8	28,372	10.8	–	–	–	–	–	–
East South Central	**3,240,521**	**1,076,779**	**33.2**	**7,649**	**0.2**	**54,471**	**1.7**	**10,320**	**0.3**	**1,184,993**	**36.6**	**254,422**	**7.9**	**315,969**	**9.7**	**14,434**	**0.4**	**296,904**	**9.2**	**16,509**	**0.5**	**1,954**	**0.1**	**6,117**	**0.2**
Ala.	1,297,959	431,297	33.2	2,817	0.2	33,441	2.6	3,358	0.3	501,266	38.6	70,740	5.5	116,510	9.0	14,434	1.1	119,814	9.2	–	–	–	–	4,282	0.3
Ky.	307,489	32,654	10.6	224	0.1	4,340	1.4	1,934	0.6	148,650	48.4	17,951	5.8	47,660	15.5	–	–	36,781	12.0	13,506	4.4	1,954	0.6	1,835	0.6
Miss.	858,651	238,805	27.8	2,443	0.3	9,353	1.1	1,300	0.2	272,779	31.8	163,865	19.1	96,261	11.2	–	–	70,842	8.2	3,003	0.3	–	–	–	–
Tenn.	776,422	374,023	48.2	2,165	0.3	7,337	0.9	3,728	0.5	262,298	33.8	1,866	0.2	55,538	7.2	–	–	69,467	8.9	–	–	–	–	–	–
West South Central	**4,055,408**	**1,002,691**	**24.7**	**7,901**	**0.2**	**128,187**	**3.2**	**29,741**	**0.8**	**1,424,365**	**35.1**	**311,866**	**7.7**	**433,797**	**10.7**	**–**	**–**	**620,989**	**15.3**	**41,792**	**1.0**	**370**	**0.0**	**53,709**	**1.3**
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	719,113	186,216	25.9	1,619	0.2	115,046	16.0	2,892	0.4	216,624	30.1	–	–	51,352	7.2	–	–	134,340	18.7	11,024	1.5	–	–	–	–
Okla.	415,786	127,195	30.6	2,231	0.5	4,027	1.0	4,586	1.1	139,725	33.6	8,531	2.1	46,926	11.3	–	–	77,400	18.6	5,165	1.2	–	–	–	–
Tex.	2,920,509	689,280	23.6	4,051	0.1	9,114	0.3	22,263	0.8	1,068,016	36.6	303,335	10.4	335,519	11.5	–	–	409,249	14.0	25,603	0.9	370	0.0	53,709	1.8
Mountain	**1,807,364**	**674,289**	**37.3**	**3,789**	**0.2**	**8,282**	**0.5**	**9,260**	**0.5**	**596,555**	**33.0**	**37,183**	**2.1**	**70,906**	**3.9**	**1,148**	**0.1**	**215,171**	**11.9**	**118,270**	**6.5**	**5,387**	**0.3**	**67,124**	**3.7**
Ariz.	145,937	20,992	14.4	1,360	0.9	334	0.2	3,876	2.7	69,428	47.6	8,343	5.7	–	–	–	–	36,017	24.7	5,022	3.4	565	0.4	–	–
Colo.	521,196	172,722	33.1	229	0.1	2,268	0.4	744	0.2	214,214	41.1	18,956	3.6	25,910	5.0	–	–	38,779	7.4	19,388	3.7	3,140	0.6	24,846	4.8
Ida.	200,053	37,489	18.7	964	0.5	544	0.3	870	0.4	22,642	11.3	5,785	2.9	6,253	3.1	1,148	0.6	45,557	22.8	52,199	26.1	–	–	26,602	13.3
Mont.	91,217	17,903	19.6	337	0.4	636	0.7	361	0.4	53,419	58.6	–	–	–	–	–	–	11,978	13.1	6,413	7.0	164	0.2	6	0.0
Nev.	127,109	55,276	43.5	99	0.1	259	0.2	–	–	36,239	28.5	1,339	1.1	16,208	12.7	–	–	9,024	7.1	8,665	6.8	–	–	–	–
N.M.	284,809	101,517	35.7	507	0.2	634	0.2	1,132	0.4	101,184	35.5	2,760	1.0	22,485	7.9	–	–	27,437	9.6	18,882	6.6	29	0.0	8,242	2.9
Utah	195,280	61,544	31.5	293	0.2	3,512	1.8	1,895	1.0	78,695	40.3	–	–	50	0.0	–	–	36,159	18.5	7,701	3.9	1,489	0.8	3,942	2.0
Wyo.	241,763	206,846	85.6	–	–	95	0.0	382	0.2	20,734	8.6	–	–	–	–	–	–	10,220	4.2	–	–	–	–	3,486	1.4
Pacific	**1,331,780**	**367,458**	**27.6**	**1,879**	**0.1**	**12,085**	**0.9**	**14,358**	**1.1**	**489,876**	**36.8**	**7,960**	**0.6**	**261,689**	**19.6**	**–**	**–**	**90,673**	**6.8**	**56,757**	**4.3**	**12,940**	**1.0**	**16,105**	**1.2**
Alaska	189,278	100,314	53.0	309	0.2	1,644	0.9	2,386	1.3	66,658	35.2	4,062	2.1	–	–	–	–	12,738	6.7	606	0.3	–	–	561	0.3
Cal.	166,593	25,276	15.2	61	0.0	1,977	1.2	6,038	3.6	64,994	39.0	90	0.1	693	0.4	–	–	17,561	10.5	21,603	13.0	12,940	7.8	15,360	9.2
Hawaii	298,640	191,170	64.0	756	0.3	4,007	1.3	2,108	0.7	51,200	17.2	722	0.2	7,356	2.5	–	–	10,236	3.4	31,070	10.4	–	–	15	0.0
Ore.	504,209	18,148	3.6	403	0.1	1,309	0.3	2,815	0.5	263,870	52.3	–	–	176,866	35.1	–	–	40,798	8.1	–	–	–	–	–	–
Wash.	173,060	32,550	18.8	350	0.2	3,148	1.8	1,011	0.6	43,154	24.9	3,086	1.8	76,774	44.4	–	–	9,340	5.4	3,478	2.0	–	–	169	0.1
Territories	**317,037**	**48,152**	**15.2**	**723**	**0.2**	**11,642**	**3.7**	**252**	**0.1**	**136,792**	**43.1**	**37,121**	**11.7**	**47,119**	**14.9**	**–**	**–**	**25,005**	**7.9**	**9,116**	**2.9**	**–**	**–**	**1,115**	**0.3**
Guam	15,345	3,704	24.1	–	–	946	6.2	11	0.1	1,606	10.5	4,819	31.4	3,848	25.1	–	–	405	2.6	6	0.0	–	–	–	–
P.R.	258,264	31,983	12.4	–	–	2,236	0.9	241	0.1	126,530	49.0	31,676	12.3	41,678	16.1	–	–	16,838	6.5	6,285	2.4	–	–	799	0.3
V.I.	43,428	12,465	28.7	723	1.7	8,460	19.5	–	–	8,656	19.9	626	1.4	1,595	3.7	–	–	7,762	17.9	2,825	6.5	–	–	316	0.7

SECTION II
PERSONNEL

Table 2-1
BUDGETED POSITIONS BY CATEGORIES AND POSITION VACANCIES

Lab & Region	Total Budgeted Positions	Management			Clerical			Prof. & Tech.			Support Sar.			Maintanance			Total Filled Positions	
		#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%
Total	**5,900.4**	**417.9**	**7.1**	**17.5**	**757.7**	**12.9**	**30.0**	**3,596.0**	**61.0**	**174.5**	**940.8**	**15.9**	**35.0**	**188.0**	**3.2**	**10.5**	**5,632.9**	**95.5**
Average	113.5	8.0	7.1	0.3	14.6	12.9	0.6	69.2	61.0	3.4	18.1	15.9	0.7	3.6	3.2	0.2	108.3	95.5
New England	**663.1**	**59.0**	**8.9**	**4.5**	**93.2**	**14.1**	**5.0**	**397.4**	**59.9**	**20.0**	**78.5**	**11.8**	**7.0**	**35.0**	**5.3**	**1.0**	**625.6**	**94.3**
Conn.	224.1	24.0	10.7	1.0	33.2	14.8	2.0	140.4	62.7	6.0	25.5	11.4	3.0	1.0	0.4	–	212.1	94.6
Mass.	231.0	24.0	10.4	3.5	34.0	14.7	3.0	118.0	51.0	11.0	23.0	10.0	4.0	32.0	13.9	1.0	208.5	90.3
Me.	60.0	4.0	8.0	–	7.0	14.0	–	33.0	66.0	1.0	6.0	12.0	–	–	–	–	49.0	98.0
N.H.	22.0	1.0	4.5	–	4.0	18.2	–	14.0	63.7	–	3.0	13.6	–	–	–	–	22.0	100.0
R.I.	106.0	5.0	4.7	–	10.0	9.4	–	72.0	67.9	2.0	17.0	16.1	–	2.0	1.9	–	104.0	98.1
Vt.	30.0	1.0	3.3	–	5.0	16.7	–	20.0	66.7	–	4.0	13.3	–	–	–	–	30.0	100.0
Middle Atlantic	**319.0**	**24.0**	**7.5**	**–**	**35.0**	**11.0**	**1.0**	**199.0**	**62.4**	**6.0**	**15.0**	**4.7**	**–**	**46.0**	**14.4**	**4.0**	**308.0**	**96.6**
N.J.	216.0	5.0	2.3	–	21.0	9.7	1.0	146.0	67.6	3.0	2.0	0.9	–	42.0	19.5	2.0	210.0	97.2
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	103.0	19.0	18.4	–	14.0	13.6	–	53.0	51.5	3.0	13.0	12.6	–	4.0	3.9	2.0	98.0	95.2
East North Central	**1,000.5**	**78.9**	**7.9**	**4.0**	**109.0**	**10.9**	**6.0**	**568.3**	**56.8**	**54.0**	**177.3**	**17.7**	**12.0**	**67.0**	**6.7**	**4.0**	**920.5**	**92.0**
Ill.	140.0	13.0	9.3	1.0	22.0	15.7	3.0	79.0	56.4	6.0	25.0	17.9	2.0	1.0	0.7	–	128.0	91.4
Ind.	93.0	7.0	7.5	–	13.0	14.0	–	62.0	66.7	4.0	11.0	11.8	–	–	–	–	89.0	95.7
Mich.	406.2	14.9	3.7	1.0	25.0	6.1	1.0	218.0	53.7	15.0	91.3	22.5	4.0	57.0	14.0	3.0	382.2	94.1
Ohio	188.0	8.0	4.2	–	25.0	13.3	2.0	122.0	64.9	18.0	24.0	12.8	4.0	9.0	4.8	1.0	163.0	86.7
Wisc.	173.3	36.0	20.8	2.0	24.0	13.8	–	87.3	50.4	11.0	26.0	15.0	2.0	–	–	–	158.3	91.3
West North Central	**419.4**	**38.0**	**9.1**	**2.0**	**62.8**	**15.0**	**3.0**	**258.4**	**61.6**	**10.0**	**59.2**	**14.1**	**–**	**1.0**	**0.2**	**–**	**404.4**	**96.4**
Ia.	106.0	10.0	9.4	–	15.0	14.2	–	68.0	64.2	1.0	13.0	12.2	–	–	–	–	105.0	99.1
Kans.	82.4	9.0	10.9	2.0	10.0	12.1	–	52.4	63.6	4.0	11.0	13.4	–	–	–	–	76.4	92.7
Minn.	88.5	6.0	6.8	–	18.5	20.9	1.0	47.0	53.1	1.0	17.0	19.2	–	–	–	–	86.5	97.7
Mo.	57.0	3.0	5.3	–	6.0	10.5	–	40.0	70.2	2.0	7.0	12.3	–	1.0	1.7	–	55.0	96.5
Nebr.	31.0	2.0	6.5	–	5.0	16.1	1.0	21.0	67.7	2.0	3.0	9.7	–	–	–	–	28.0	90.3
N.D.	31.5	5.0	15.9	–	5.3	16.8	–	17.0	54.0	–	4.2	13.3	–	–	–	–	31.5	100.0
S.D.	23.0	3.0	13.0	–	3.0	13.0	1.0	13.0	56.6	–	4.0	17.4	–	–	–	–	22.0	95.7
South Atlantic	**1,375.4**	**68.0**	**4.9**	**2.0**	**161.8**	**11.7**	**5.0**	**916.8**	**66.7**	**22.5**	**205.8**	**15.0**	**6.0**	**23.0**	**1.7**	**1.0**	**1,338.9**	**97.4**
Del.	33.0	1.0	3.0	–	4.0	12.1	–	22.0	66.7	–	6.0	18.2	–	–	–	–	33.0	100.0
D.C.	58.0	2.0	3.4	–	5.0	8.6	–	48.0	82.8	4.0	3.0	5.2	–	–	–	–	54.0	93.1
Fla.	249.0	12.0	4.8	–	35.0	14.0	–	159.0	63.9	–	41.0	16.5	–	2.0	0.8	–	249.0	100.0
Ga.	141.0	8.0	5.7	1.0	21.0	14.9	–	73.0	51.8	1.5	38.0	27.0	–	1.0	0.7	–	138.5	98.2
Md.	267.0	4.0	1.5	–	20.0	7.5	2.0	190.0	71.1	3.0	48.0	18.0	4.0	5.0	1.9	–	258.0	96.6
N.C.	146.0	9.0	6.2	–	17.0	11.6	–	94.0	64.4	3.0	24.0	16.4	–	2.0	1.4	–	143.0	98.0
S.C.	119.4	13.0	10.9	–	10.8	9.0	1.0	80.8	67.7	3.0	12.8	10.7	–	2.0	1.7	–	115.4	96.7
Va.	305.0	17.0	5.5	1.0	39.0	12.8	1.0	219.0	71.8	7.0	24.0	7.9	1.0	6.0	2.0	–	295.0	96.7
W. Va.	57.0	2.0	3.5	–	10.0	17.5	1.0	31.0	54.4	1.0	9.0	15.8	1.0	5.0	8.8	1.0	53.0	93.0
East South Central	**479.5**	**35.0**	**7.3**	**–**	**64.0**	**13.4**	**2.0**	**289.0**	**60.3**	**7.0**	**87.5**	**18.2**	**3.0**	**4.0**	**0.8**	**–**	**467.5**	**97.5**
Ala.	187.0	14.0	7.5	–	30.0	16.1	2.0	121.0	64.7	3.0	21.0	11.2	–	1.0	0.5	–	182.0	97.3
Ky.	79.5	6.0	7.5	–	6.0	7.5	–	53.0	66.7	1.0	13.5	17.0	–	1.0	1.3	–	78.5	98.7
Miss.	52.0	2.0	3.8	–	8.0	15.4	–	33.0	63.5	1.0	9.0	17.3	–	–	–	–	51.0	98.1
Tenn.	161.0	13.0	8.1	–	20.0	12.4	–	82.0	51.0	2.0	44.0	27.3	3.0	2.0	1.2	–	156.0	96.9
West South Central	**417.5**	**18.0**	**4.3**	**1.0**	**70.0**	**16.8**	**–**	**247.5**	**59.3**	**4.0**	**82.0**	**19.6**	**1.0**	**–**	**–**	**–**	**411.5**	**98.6**
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	156.0	13.0	8.3	1.0	37.0	23.7	–	71.0	45.5	3.0	35.0	22.5	1.0	–	–	–	151.0	96.8
Okla.	53.5	2.0	3.7	–	5.0	9.4	–	34.5	64.5	–	12.0	22.4	–	–	–	–	53.5	100.0
Tex.	208.0	3.0	1.4	–	28.0	13.5	–	142.0	68.3	1.0	35.0	16.8	–	–	–	–	207.0	99.5
Mountain	**411.9**	**47.0**	**11.4**	**3.0**	**53.6**	**13.0**	**–**	**243.0**	**59.0**	**14.0**	**63.3**	**15.4**	**4.0**	**5.0**	**1.2**	**0.5**	**390.4**	**94.8**
Ariz.	63.0	6.0	9.5	–	14.0	22.2	–	40.0	63.5	3.0	2.0	3.2	–	1.0	1.6	–	60.0	95.2
Colo.	71.0	13.0	18.3	–	5.0	7.1	–	36.0	50.7	3.0	17.0	23.9	2.0	–	–	–	66.0	93.0
Ida.	65.6	6.0	9.2	–	11.1	16.9	–	42.5	64.8	1.0	4.0	6.1	1.0	2.0	3.0	0.5	63.1	96.2
Mont.	30.5	3.0	9.8	1.0	3.0	9.8	–	21.0	68.9	–	3.5	11.5	–	–	–	–	29.5	96.7
Nev.	33.0	3.0	9.1	–	3.0	9.1	–	15.0	45.5	–	11.0	33.3	–	1.0	3.0	–	33.0	100.0
N.M.	70.0	6.0	8.6	–	7.0	10.0	–	39.0	55.7	3.0	17.0	24.3	1.0	1.0	1.4	–	66.0	94.3
Utah	64.0	9.0	14.1	2.0	8.5	13.3	–	39.5	61.7	1.0	7.0	10.9	–	–	–	–	61.0	95.3
Wyo.	14.8	1.0	6.7	–	2.0	13.5	–	10.0	67.6	3.0	1.8	12.2	–	–	–	–	11.8	79.7
Pacific	**662.2**	**35.0**	**5.3**	**–**	**95.3**	**14.4**	**2.0**	**375.7**	**56.7**	**4.0**	**155.2**	**23.4**	**1.0**	**1.0**	**0.2**	**–**	**655.2**	**98.9**
Alaska	39.0	5.0	12.8	–	9.0	23.1	–	13.0	33.3	–	12.0	30.8	–	–	–	–	39.0	100.0
Cal.	430.6	13.0	3.0	–	59.0	13.7	–	252.4	58.6	–	106.2	24.7	–	–	–	–	430.6	100.0
Hawaii	54.5	1.0	1.8	–	4.0	7.4	1.0	37.5	68.8	3.0	12.0	22.0	1.0	–	–	–	49.5	90.8
Ore.	59.1	4.0	6.8	–	10.3	17.4	1.0	37.8	63.9	1.0	7.0	11.9	–	–	–	–	57.1	96.6
Wash	79.0	12.0	15.2	–	13.0	16.4	–	35.0	44.3	–	18.0	22.8	–	1.0	1.3	–	79.0	100.0
Territories	**152.0**	**15.0**	**9.9**	**1.0**	**13.0**	**8.5**	**6.0**	**101.0**	**66.5**	**33.0**	**17.0**	**11.2**	**1.0**	**6.0**	**3.9**	**–**	**111.0**	**73.0**
Guam	12.0	1.0	8.3	–	1.0	8.3	–	10.0	83.4	2.0	–	–	–	–	–	–	10.0	83.4
P.R.	136.0	14.0	10.3	1.0	12.0	8.8	6.0	87.0	64.0	29.0	17.0	12.5	1.0	6.0	4.4	–	99.0	72.8
V.I.	4.0	–	–	–	–	–	–	4.0	100.0	2.0	–	–	–	–	–	–	2.0	50.0

DEFINITIONS

1. **Management:** Include laboratory directors and assistant directors, lab supervisors, business managers, management officers and administrative officers who spend more than 50% of their time on administration and management of laboratory activities.
2. **Clerical:** Include secretaries, typists, and clerks in the office of the director, office services staff, budget and fiscal clerks and others. Do not include those covered in supportive services categories.
3. **Professional and Technical:** Those primarily engaged in examining and testing specimens and samples, or in a laboratory improvement program; including bacteriologists, chemists, microbiologists, medical technicians and technologists, and those laboratory assistants and laboratory helpers who contribute directly to the performance of laboratory tests or work in laboratory improvement programs.
4. **Supportive Services:** All those except maintenance personnel not included in the first three categories. Examples are those engaged in preparation of glassware, media, shipping containers, animal handling work, messengers, and supply and procurement personnel.
5. **Maintenance:** Include those who install, repair, or perform preventive maintenance on equipment and maintenance of buildings including housekeeping.

Table 2-2
TURNOVER

Lab & Region	Total Budgeted Pos.	Total # Resig & Sep.	% Turnover Budgeted Pos.	Number of Resignations & Separations by Categories						
				Management	Clerical	Prof & Tech Positions			Supportive Services	Maintenance
						# Pos.	Resig & Sep.	% Turnover		
Total	**5,900.4**	**698.4**	**11.8**	**22.0**	**142.0**	**3,596.0**	**351.4**	**9.8**	**147.0**	**36.0**
Average	113.5	13.4	11.8	0.4	2.7	69.2	6.8	9.8	2.8	0.7
New England	**663.1**	**81.0**	**12.2**	**–**	**21.0**	**397.4**	**37.0**	**9.3**	**17.0**	**6.0**
Conn.	224.1	20.0	8.9	–	5.0	140.4	11.0	7.8	4.0	–
Mass.	231.0	44.0	19.0	–	8.0	118.0	20.0	16.9	10.0	6.0
Me.	50.0	5.0	10.0	–	3.0	33.0	1.0	3.0	1.0	–
N.H.	22.0	2.0	9.1	–	1.0	14.0	1.0	7.1	–	–
R.I.	106.0	6.0	5.7	–	1.0	72.0	4.0	5.6	1.0	–
Vt.	30.0	4.0	13.3	–	3.0	20.0	–	–	1.0	–
Middle Atlantic	**319.0**	**55.0**	**17.2**	**1.0**	**12.0**	**199.0**	**34.0**	**17.1**	**–**	**8.0**
N.J.	216.0	17.0	7.9	–	4.0	146.0	8.0	5.5	–	5.0
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	103.0	38.0	36.9	1.0	8.0	53.0	26.0	49.1	–	3.0
East North Central	**1,000.5**	**132.0**	**13.2**	**5.0**	**24.0**	**568.3**	**51.0**	**9.0**	**39.0**	**13.0**
Ill.	140.0	18.0	12.9	1.0	6.0	79.0	6.0	7.6	5.0	–
Ind.	93.0	13.0	14.0	1.0	6.0	62.0	4.0	6.5	2.0	–
Mich.	406.2	54.0	13.3	1.0	3.0	218.0	21.0	9.6	18.0	11.0
Ohio	188.0	34.0	18.1	–	4.0	122.0	15.0	12.3	13.0	2.0
Wisc.	173.3	13.0	7.5	2.0	5.0	87.3	5.0	5.7	1.0	–
West North Central	**419.4**	**71.4**	**17.0**	**3.0**	**17.0**	**258.4**	**32.4**	**12.5**	**18.0**	**1.0**
Ia.	106.0	15.0	14.2	–	3.0	68.0	9.0	13.2	3.0	–
Kans.	82.4	13.4	16.3	3.0	5.0	52.4	3.4	6.5	2.0	–
Minn.	88.5	17.0	19.2	–	3.0	47.0	7.0	14.9	7.0	–
Mo.	57.0	6.0	10.5	–	–	40.0	4.0	10.0	1.0	1.0
Nebr.	31.0	7.0	22.6	–	1.0	21.0	5.0	23.8	1.0	–
N.D.	31.5	8.0	25.4	–	3.0	17.0	4.0	23.5	1.0	–
S.D.	23.0	5.0	21.7	–	2.0	13.0	–	–	3.0	–
South Atlantic	**1,375.4**	**118.0**	**8.6**	**3.0**	**20.0**	**916.8**	**79.0**	**8.6**	**14.0**	**2.0**
Del.	33.0	5.0	15.2	–	–	22.0	5.0	22.7	–	–
D.C.	58.0	8.0	13.8	–	1.0	48.0	6.0	12.5	1.0	–
Fla.	249.0	–	–	–	–	159.0	–	–	–	–
Ga.	141.0	16.0	11.3	–	4.0	73.0	9.0	12.3	3.0	–
Md.	267.0	32.0	12.0	–	5.0	190.0	20.0	10.5	7.0	–
N.C.	146.0	25.0	17.1	1.0	5.0	94.0	17.0	18.1	1.0	1.0
S.C.	119.4	18.0	15.1	1.0	3.0	80.8	14.0	17.3	–	–
Va.	305.0	10.0	3.3	1.0	1.0	219.0	7.0	3.2	1.0	–
W. Va.	57.0	4.0	7.0	–	1.0	31.0	1.0	3.2	1.0	1.0
East South Central	**479.5**	**39.0**	**8.1**	**3.0**	**8.0**	**289.0**	**22.0**	**7.6**	**6.0**	**–**
Ala.	187.0	16.0	8.6	1.0	5.0	121.0	8.0	6.6	2.0	–
Ky.	79.5	5.0	6.3	–	2.0	53.0	2.0	3.8	1.0	–
Miss.	52.0	8.0	15.4	–	1.0	33.0	7.0	21.2	–	–
Tenn.	161.0	10.0	6.2	2.0	–	82.0	5.0	6.1	3.0	–
West South Central	**417.5**	**33.0**	**7.9**	**–**	**8.0**	**247.5**	**20.0**	**8.1**	**5.0**	**–**
Ark.	–	–	–	–	–	–	–	–	–	–
La.	156.0	–	–	–	–	71.0	–	–	–	–
Okla.	53.5	5.0	9.3	–	1.0	34.5	3.0	8.7	1.0	–
Tex.	208.0	28.0	13.5	–	7.0	142.0	17.0	12.0	4.0	–
Mountain	**411.9**	**99.0**	**24.0**	**5.0**	**18.0**	**243.0**	**35.0**	**14.4**	**35.0**	**6.0**
Ariz.	63.0	17.0	27.0	–	9.0	40.0	6.0	15.0	2.0	–
Colo.	71.0	9.0	12.7	–	–	36.0	4.0	11.1	5.0	–
Ida.	65.6	13.0	19.8	1.0	3.0	42.5	4.0	9.4	1.0	4.0
Mont.	30.5	4.0	13.1	–	–	21.0	3.0	14.3	1.0	–
Nev.	33.0	–	–	3.0	3.0	15.0	–	–	11.0	1.0
N.M.	70.0	20.0	28.6	–	–	39.0	12.0	30.8	7.0	1.0
Utah	64.0	13.0	20.3	1.0	3.0	39.5	2.0	5.1	7.0	–
Wyo.	14.8	5.0	33.8	–	–	10.0	4.0	40.0	1.0	–
Pacific	**662.2**	**52.0**	**7.9**	**1.0**	**9.0**	**375.7**	**30.0**	**8.0**	**12.0**	**–**
Alaska	39.0	8.0	20.5	1.0	2.0	13.0	1.0	7.7	4.0	–
Cal.	430.6	33.0	7.7	–	4.0	252.4	24.0	9.5	5.0	–
Hawaii	54.5	5.0	9.2	–	1.0	37.5	3.0	8.0	1.0	–
Ore.	59.1	4.0	6.8	–	2.0	37.8	1.0	2.6	1.0	–
Wash.	79.0	2.0	2.5	–	–	35.0	1.0	2.9	1.0	–
Territories	**152.0**	**18.0**	**11.8**	**1.0**	**5.0**	**101.0**	**11.0**	**10.9**	**1.0**	**–**
Guam	12.0	–	–	–	–	10.0	–	–	–	–
P.R.	136.0	17.0	12.5	1.0	5.0	87.0	10.0	11.5	1.0	–
V.I.	4.0	1.0	25.0	–	–	4.0	1.0	25.0	–	–

Table 2-3

STAFFING PATTERN OF PROFESSIONAL AND TECHNICAL PERSONNEL IN THE 15 WORKLOAD REPORTING CATEGORIES AND POSITION CHANGES SINCE LAST REPORTING PERIOD (+ OR –)

Lab & Region	WORKLOAD REPORTING CATEGORIES																																Total Prof. and Tech. Pos. Reported in Workload Categories	Total Changes Reported
	I Diagnostic Bact.		II Mycology		III Parasitology		IV Virology		V Immunology		VI Hematology		VII Clinical Chemistry		VIII Pathology		IX Env. Micro.		X Env. Chem.		XI Occup. Health & Safety		XII Toxicology		XIII Lab Improva. Program		XIV Biologic, Reagent, Media Prod.		XV Research and Develop.						
New England																																		
Conn.	21.5	–1.5	1.0		4.0	+1.0	4.0	+1.0	11.2	–2.8	3.0		8.4	+1.4	1.0		7.2	+0.2	29.1	+3.1	5.0		25.0	–2.0	11.0	+3.0	8.0	+4.0	1.0					140.4	+7.4
Mass.	20.0		1.0		2.0	+1.0	12.0		11.0	–0.3	–		14.0		–		–		–		–		13.0	+4.0	4.0	+1.0	39.0	+2.0	2.0					118.0	+7.8
Me	7.0	+1.0	1		1		3.0		1.5	–1.5	–		1.0		–		8.0		–		8.0		–		2.5	+0.5	2.0	+2.0	–					33.0	+2.0
N.H	9.6	–1.0	0.2		0.5		0.1		1.5		–		0.5		–		–		–		–		0.1		1.0	+0.5	0.5		–					14.0	–0.5
R.I.	7.0		1		1				6.0		–		7.0		–		10.0		21.0	+2.0	3.0	+1.0	17.0	+1.0	1.0		–		–					72.0	+4.0
Vt.	5.1	–0.7	0.3		1.0	+0.2	1.5	+0.8	5.0	–0.2	–		–		–		2.0		2.0		–		2.0		0.1		1.0		–					20.0	+0.1
Middle Atlantic																																		
N.J.	31.0		2.0		1.0		24.0	–11.0	–		–		3.0		–		8.0		32.0		–		20.0	+1.0	25.0		–		–					146.0	–10.0
N.Y.	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–					–	
Pa.	15.0		1		1		10.0		IV		12.0		VI		–		–		–		–		5.0		11.0		–		–					53.0	
East North Central																																		
Ill.	18.0	–3.0	1.0		1.0		10.0	–1.0	9.0	–1.0	–		–		–		11.0		13.0		–		9.0	+1.0	6.0		1.0		–					79.0	–4.0
Ind.	10.5		1.5		1.0		3.0		6.0		–		–		–		11.0	–1.0	25.0	+2.0	–		-		2.0		2.0		–					62.0	+1.0
Mich.	44.5	+2.1	1.0	–0.7	1.0	–1.5	14.0	–0.5	13.0	–1.2	5.0	+2.5	5.5	+2.0	–		6.5	+1.0	6.5	+2.8	–		–		8.0	+2.0	61.0	–1.4	52.0	+1.0				218.0	+8.1
Ohio	32.0	+4.0	1.0		1.0		11.0	+4.0	8.0		–	–1.0	11.0	+2.0	–		6.0	–5.0	20.0	+1.0	12.0		8.0	+6.0	6.0		6.0	+4.0	–	–1.0				122.0	+14.0
Wisc.	15.5	3.0	1.0	–0.5	1.0	–0.5	10.0	–3.0	10.0	–5.0	–		19.0	+10.0	14.0	–2.0	2.0		6.0	–2.0	2.0		5.0	–2.0	–		–		1.8					87.3	–8.0
West North Central																																		
Ia.	7.0		2.0		0.5		8.0	–1.0	6.0		–		0.5	–1.5	–		5.0		23.0	+3.0	5.0	+1.0	1.5	–2.5	4.5	+2.0	5.0		–					68.0	+1.0
Kans.	12.0		1.0		2.0		4.0		3.0	–1.0	–		–		–		3.0	–1.2	15.4	+1.2	2.0	+1.0	6.0	+1.0	4.0		–		–					52.4	+1.0
Minn.	7.8		2.0		2.3		10.0		11.0	–1.0	–		3.0		3.0		–		–		–		-		5.0	+1.0	3.0		–					47.0	
Mo.	10.0	+1.0	0.5		0.5		5.0		6.0		–		1.0		–		5.0		4.0		–		–		6.0		2.0		–					40.0	+1.0
Nebr.	4.5	–1.5	1		1		1		2.0	–0.5	–		6.0	–1.0	–		3.0	+1.5	5.0	+1.5	–		VII		–		0.5		–					21.0	
N.D.	6.5		1		1		1		1		–		1.0		–		2.0		6.0		–		–		0.5		1.0		–					17.0	
S.D.	4.0	1.0	–		–		–		2.0		–		–		–		2.0		4.0	–1.0	–		–		1.0	+1.0	–		–					13.0	–1.0
South Atlantic																																		
Del.	3.9		0.1		0.2		3.0		1.6		0.4		0.8		6.0		2.7		2.5		0.1		0.5		0.5		–		–					22.0	
D.C.	7.0		2.0		1.0	+1.0	–		7.0	+2.0	4.5	+1.5	5.0		6.5		2.0		2.0	–3.0	–		6.0	–3.0	2.0		3.0		-					48.0	–1.5
Fla.	–		-		–		–		–		–		–		-		–		–		–		–		–		–		-					–	
Ga.	27.0	+1.0	1.5		3.5		7.5	+1.0	16.0		2.5		4.0		–		–		–		–		7.0		–		4.0		–					73.0	+2.0
Md.	44.0	–4.0	1.0		2.0	+1.0	4.0		23.0		10.0	–2.0	20.0	+3.0	14.0	+1.0	20.0	+1.0	42.0		7.0	+3.0	1.0	–1.0	2.0	–1.0	–		–					190.0	+1.0
N.C.	10.0		1.0		1.0		5.0		13.0	–1.0	2.5		8.5	+1.0	21.0	+4.0	7.0		12.5	+1.0	4.5		1.0		7.0	+2.0	–		–					94.0	+7.0
S.C.	17.0	–3.4	3.0		4.0		3.9	+0.9	15.2	–1.7	9.0	+2.7	8.3	+0.8	–	–0.3	5.6	+1.7	8.6	+2.7	–		4.0	–2.5	2.0		0.2		–					80.8	+0.9
Va.	16.0		1		4.0		9.0	+1.0	6.0		–		6.0	+2.0	–		16.0	+2.0	64.0	+3.0	3.0		80.0	+3.0	4.0		5.0	1.0	–					213.0*	+12.0
W. Va.	9.0		1		1		3.0		2.0		1		4.0		4.0	–1.0	4.0	–1.0	–		–		–		4.0	–1.0	1.0		–					31.0	–3.0
East South Central																																		
Ala.	50.0	–2.0	3.0		10.0		3.0		15.0	+1.0	3.0	–1.0	3.0		3.0		15.0	–1.0	–		–		1.0	+1.0	1.5	+1.5	13.0		0.5	+0.5				121.0	
Ky.	6.0	+1.0	1.0		1.0		2.0		11.0		3.0		3.0		–		6.0		8.0		4.0		5.0		3.0		–		–					53.0	+1.0
Miss.	–		–		–		–		-		-		-		–		–		–		-		–		–		–		-					–	
Tenn.	37.0		1.0		1.0	–4.0	10.0		9.0	–8.0	1.0		–		–		11.0	+1.0	–		–		–		–		12.0		-					82.0	–11.0
West South Central																																		
Ark.	–		–		–		–		–		–		–		-		–		–		–		–		–		–		–					–	
La.	9.0	+2.0	1.0		1.0		1.0		11.0	+1.0	–		1.0		–		11.0		11.0	+3.0	–		–		–		–		–					–	+6.0
Okla.	8.7	–0.1	0.5		0.8		2.6	–0.4	8.9	–0.2	0.7		2.0	+0.3	–		6.1		1.1	–0.3	–		-		2.3	+0.6	–		0.8	+0.1				34.5	
Tex.	39.0	+1.0	–		7.0		12.0	+2.0	12.0	+2.0	–		15.0	+2.0	–		–		36.0	+1.0	–		–		10.0	+7.0	11.0	–5.0	–					142.0	+10.0
Mountain																																		
Ariz.	4.0		3.0		3.0		2.0		4.0		–		–		–		5.0	+2.0	8.0		2.0		–		4.0		5.0	–2.0	–					40.0	
Colo.	7.0	–1.0	0.5		1.0		1.5		3.0		-		–		–		4.0		13.0		2.0		2.0		2.0		–		–					36.0	–1.0
Ida.	10.0	–0.5	1		1		3.0	+0.5	1.0		–		–		2.0		7.5	+1.0	9.5	+1.0	–		9.5	+1.0	–		–		–					42.5	+3.0
Mont.	7.5	+0.6	1		1		1		–		–		–		–		2.5	+0.5	9.4	+1.0	0.5		-		0.2	+0.1	3.0		-					23.1	+2.2
Nev.	2.5	+0.5	1		1		0.3	–0.3	1.3	–0.3	1.0		1.0		–		0.8	–0.3	5.3	+2.3	–		-		1.0		2.0		-					15.0	+2.0
N.M.	6.9	–1.1	1		1		7.6	+1.6	IV		IV		0.9	–0.1	1.0	+1.0	5.6	–0.4	10.0		X		5.0		2.0	+1.0	–		–					39.0	+2.0
Utah	4.0		1.0		1.0		3.0		3.0		–		-		–		2.0		11.0		1.0		9.0		3.5		1.0		–					39.5	
Wyo.	4.5		–		1		–		1.0		–		–		–		0.5		–				3.0		1.0		–		–					10.0	
Pacific																																		
Alaska	10.0	+1.0	1		1		2.0		1		1		–		–		1		1.0		–		–		1		–		–					13.0	+1.0
Cal.	15.5	+2.5	6.0		3.0		25.0	+7.0	13.5	1.5	–		15.0	+4.0	-		5.0	+3.0	65.5	–12.5	52.0	+18.0	1.0		26.0	–7.0	–		2.0	–1.0				229.5*	+15.5
Hawaii	12.0	+3.0	0.5		1.0		2.0		3.0		–		0.5	–0.5	–		5.5	–1.0	11.5	–1.0	–		–	–0.5	1.5		–		–					37.5	
Ore.	6.0	+1.0	1.0		1.0		5.0	+2.0	10.0	–1.0	-		6.8	+1.0	–		4.0	–0.3	–		-		–		4.0		–		–					37.8	+2.8
Wash.	8.0	+1.0	1.0		1.0		2.0		1.0	–1.0	–	–1.0	3.0	+3.0	–		2.0	–2.0	10.0		–		–		7.0		–		–					35.0	
Territories																																		
Guam	3.0		–		1.0		1.0		1.0		1.0		1.0		–		–		–		-		–		–		–		–					8.0	
P.R.	–		-		-		–		–		–		-		–		–		–		–		–		–		–		-					-	
V.I.	–		-		-		–		–		–		–		–		–		–		-		–		–		–		-					2.0	

*Covers only those positions related to the 15 workload categories.

SECTION III
FINANCE

Table 3-1
LABORATORY EXPENDITURES BY CATEGORY

Lab & Region	Total Laboratory Expenditures	EXPENDITURE CATEGORY											
		Personnel			Supplies & Materials		Equipment		General Operating Exp.		Other		
		Salaries	Benefits	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.
Total	**111,865,208**	**70,557,698**	**10,817,342**	**72.7**	**12,040,359**	**10.8**	**5,014,225**	**4.5**	**10,891,593**	**9.7**	**2,543,991**	**2.3**
Average	2,151,254	1,356,879	208,026	–	231,545	–	96,427	–	209,454	–	48,923	–
New England	**11,485,976**	**7,671,924**	**1,034,774**	**75.8**	**1,150,506**	**10.0**	**447,819**	**3.9**	**1,085,891**	**9.5**	**95,062**	**0.8**
Conn.	3,811,134	2,649,021	562,436	84.3	283,155	7.4	252,115	6.6	51,083	1.3	13,324	0.4
Mass.	3,892,828	2,490,506	–	64.0	493,501	12.7	15,744	0.4	876,433	22.5	16,644	0.4
Me.	826,076	470,548	68,862	65.3	102,327	12.4	47,796	5.8	78,691	9.5	57,852	7.0
N.H.	372,032	227,051	33,822	70.1	56,486	15.2	948	0.2	53,375	14.4	350	0.1
R.I.	2,134,325	1,481,432	340,729	85.4	163,133	7.6	122,840	5.8	21,191	1.0	5,000	0.2
Vt.	449,581	353,366	28,925	85.0	51,904	11.6	8,376	1.9	5,118	1.1	1,892	0.4
Middle Atlantic	**6,739,367**	**3,580,512**	**956,212**	**67.3**	**600,370**	**8.9**	**489,287**	**7.3**	**442,549**	**6.6**	**670,437**	**9.9**
N.J.	4,195,867	2,130,512	608,212	65.3	395,870	9.4	436,287	10.4	40,549	1.0	584,437	13.9
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	2,543,500	1,450,000	348,000	70.7	204,500	8.0	53,000	2.1	402,000	15.8	86,000	3.4
East North Central	**19,886,871**	**12,791,471**	**2,325,238**	**76.0**	**1,735,959**	**8.7**	**874,249**	**4.4**	**1,940,072**	**9.8**	**219,882**	**1.1**
Ill.	2,553,300	1,744,000	293,300	79.8	282,700	11.1	68,500	2.7	125,400	4.9	39,400	1.5
Ind.	2,325,953	1,577,749	268,217	79.4	–	–	–	–	477,024	20.5	2,963	0.1
Mich.	9,270,150	5,690,630	1,278,186	75.2	587,654	6.3	460,170	5.0	1,169,068	12.6	84,442	0.9
Ohio	2,789,688	1,769,216	353,843	76.1	303,503	10.9	153,687	5.5	123,580	4.4	85,859	3.1
Wisc.	2,947,780	2,009,876	131,692	72.7	562,102	19.1	191,892	6.5	45,000	1.5	7,218	0.2
West North Central	**8,013,709**	**4,750,095**	**708,667**	**68.1**	**1,052,953**	**13.1**	**622,884**	**7.8**	**709,689**	**8.9**	**169,421**	**2.1**
Ia.	2,651,477	1,458,367	214,963	63.1	361,881	13.7	277,792	10.5	290,144	10.9	48,330	1.8
Kans.	1,467,528	913,902	139,893	71.8	144,818	9.9	25,967	1.8	217,817	14.8	25,131	1.7
Minn.	1,493,059	992,347	177,506	78.3	176,400	11.8	65,100	4.4	73,947	5.0	7,769	0.5
Mo.	967,799	598,200	70,864	69.1	148,515	15.3	93,645	9.7	27,708	2.9	28,867	3.0
Nebr.	492,074	256,753	30,710	58.4	80,775	16.4	64,890	13.2	46,925	9.6	12,021	2.4
N.D.	555,120	315,493	43,812	64.7	93,477	16.9	68,787	12.4	27,296	4.9	6,255	1.1
S.D.	386,642	215,033	30,919	63.6	47,087	12.2	26,703	6.9	25,852	6.7	41,048	10.6
South Atlantic	**23,176,051**	**16,153,915**	**1,496,522**	**76.2**	**3,198,498**	**13.8**	**929,211**	**4.0**	**1,100,494**	**4.7**	**297,411**	**1.3**
Del.	520,234	361,560	72,312	83.4	61,807	11.9	16,382	3.2	6,916	1.3	1,257	0.2
D.C.	1,190,387	884,713	80,074	81.0	171,000	14.4	54,600	4.6	–	–	–	–
Fla.	4,812,518	2,868,506	500,093	70.0	606,292	12.6	360,461	7.5	371,339	7.7	105,827	2.2
Ga.	2,491,021	1,562,117	354,592	77.0	419,524	16.8	95,618	3.8	22,170	0.9	37,000	1.5
Md.	4,099,500	3,257,717	–	79.5	605,440	14.8	23,473	0.5	209,740	5.1	3,130	0.1
N.C.	2,462,601	1,615,375	278,785	76.9	387,142	15.7	86,001	3.5	70,717	2.9	24,581	1.0
S.C.	1,680,965	1,198,169	167,744	81.3	248,481	14.8	18,831	1.1	38,036	2.2	9,704	0.6
Va.	5,179,715	3,866,960	–	74.7	593,070	11.4	261,955	5.1	353,415	6.8	104,315	2.0
W. Va.	739,110	538,798	42,922	78.7	105,742	14.3	11,890	1.6	28,161	3.8	11,597	1.6
East South Central	**8,007,705**	**5,167,207**	**454,045**	**70.2**	**1,334,771**	**16.7**	**395,546**	**4.9**	**595,059**	**7.4**	**61,077**	**0.8**
Ala.	3,245,304	2,308,054	–	71.1	703,610	21.7	24,400	0.7	180,240	5.6	29,000	0.9
Ky.	1,883,348	961,473	158,643	59.5	234,008	12.4	284,000	15.1	236,688	12.6	8,536	0.4
Miss.	913,543	534,461	94,674	68.9	170,696	18.7	40,939	4.5	67,617	7.4	5,156	0.5
Tenn.	1,965,510	1,363,219	200,728	79.6	226,457	11.5	46,207	2.4	110,514	5.6	18,385	0.9
West South Central	**7,366,708**	**4,631,311**	**676,853**	**72.1**	**869,957**	**11.8**	**199,381**	**2.7**	**953,488**	**12.9**	**35,718**	**0.5**
Ark.	–	–	–	–	–	–	–	–	–	–	–	–
La.	2,071,462	1,615,718	163,815	85.9	121,228	5.9	18,381	0.9	140,937	6.8	11,383	0.5
Okla.	1,072,246	702,593	156,038	80.1	186,729	17.4	–	–	17,551	1.6	9,335	0.9
Tex.	4,223,000	2,313,000	357,000	63.2	562,000	13.3	181,000	4.3	795,000	18.8	15,000	0.4
Mountain	**8,222,387**	**5,156,957**	**913,382**	**73.8**	**694,134**	**8.5**	**406,519**	**4.9**	**621,629**	**7.6**	**429,766**	**5.2**
Ariz.	1,301,197	815,235	152,012	74.3	121,622	9.4	34,443	2.6	152,335	11.7	25,550	2.0
Colo.	1,423,000	1,087,268	132,714	85.7	141,669	10.0	17,183	1.2	24,424	1.7	19,742	1.4
Ida.	1,404,600	793,881	189,253	70.0	–	–	114,817	8.2	–	–	306,649	21.8
Mont	337,334	207,637	30,740	70.7	20,526	6.1	20,581	6.1	17,975	5.3	39,875	11.8
Nev.	682,618	440,596	74,981	75.5	69,169	10.1	27,957	4.1	63,100	9.3	6,815	1.0
N.M.	1,395,200	797,400	115,700	65.4	121,400	8.7	116,900	8.4	229,700	16.5	14,100	1.0
Utah	1,309,253	838,031	189,615	78.5	154,072	11.8	53,786	4.1	60,855	4.6	12,894	1.0
Wyo.	369,185	176,909	28,367	55.6	65,676	17.8	20,852	5.7	73,240	19.8	4,141	1.1
Pacific	**17,921,138**	**9,838,093**	**2,211,748**	**67.3**	**1,310,282**	**7.3**	**594,097**	**3.3**	**3,426,139**	**19.1**	**540,779**	**3.0**
Alaska	1,375,000	702,300	180,300	64.2	215,400	15.7	9,200	0.6	243,300	17.7	24,500	1.8
Cal.	12,401,316	6,543,599	1,537,802	65.2	791,125	6.4	475,365	3.8	2,732,425	22.0	321,000	2.6
Hawaii	1,073,956	791,617	158,617	88.5	61,470	5.7	51,247	4.8	7,795	0.7	3,210	0.3
Ore.	1,309,545	735,577	132,679	66.3	107,287	8.2	43,285	3.3	247,619	18.9	43,098	3.3
Wash.	1,761,321	1,065,000	202,350	72.0	135,000	7.7	15,000	0.8	195,000	11.1	148,971	8.4
Territories	**1,045,296**	**816,213**	**39,901**	**81.9**	**92,929**	**8.9**	**55,232**	**5.3**	**16,583**	**1.6**	**24,438**	**2.3**
Guam	150,535	116,323	13,994	86.6	16,008	10.6	2,966	2.0	–	–	1,244	0.8
P.R.	783,500	625,890	25,907	83.2	61,660	7.9	47,266	6.0	9,583	1.2	13,194	1.7
V.I.	111,261	74,000	–	66.5	15,261	13.7	5,000	4.5	7,000	6.3	10,000	9.0

Table 3-2
SOURCES OF LABORATORY FUNDS

Lab & Region	Total Laboratory Budget	State Funds		Federal Funds		Earned Funds		Other Funds	
		Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.
Total	**111,754,947**	**79,986,346**	**71.6**	**23,048,285**	**20.6**	**7,175,596**	**6.4**	**1,544,720**	**1.4**
Average	2,191,273	1,568,360	–	451,927	–	140,698	–	30,289	–
New England	**11,485,976**	**9,581,041**	**83.4**	**1,450,653**	**12.6**	**454,282**	**4.0**	**–**	**–**
Conn.	3,811,134	3,498,206	91.8	312,928	8.2	–	–	–	–
Mass.	3,892,828	3,500,951	89.9	391,877	10.1	–	–	–	–
Me.	826,076	198,784	24.1	173,010	20.9	454,282	55.0	–	–
N.H.	372,032	276,232	74.2	95,800	25.8	–	–	–	–
R.I.	2,134,325	1,845,896	86.5	288,429	13.5	–	–	–	–
Vt.	449,581	260,972	58.0	188,609	42.0	–	–	–	–
Middle Atlantic	**6,739,367**	**5,106,894**	**75.8**	**1,311,679**	**19.5**	**320,794**	**4.7**	**–**	**–**
N.J.	4,195,867	2,966,894	70.7	908,179	21.6	320,794	7.7	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	2,543,500	2,140,000	84.1	403,500	15.9	–	–	–	–
East North Central	**19,886,871**	**12,079,637**	**60.7**	**5,588,791**	**28.1**	**2,050,270**	**10.3**	**168,173**	**0.9**
Ill.	2,553,300	9,400	0.4	2,543,900	99.6	–	–	–	–
Ind.	2,325,953	2,082,483	89.5	243,470	10.5	–	–	–	–
Mich.	9,270,150	7,834,401	84.5	1,317,134	14.2	–	–	118,615	1.3
Ohio	2,789,688	692,850	24.8	1,343,196	48.2	743,944	26.7	9,698	0.3
Wisc.	2,947,780	1,460,503	49.6	141,091	4.8	1,306,326	44.3	39,860	1.3
West North Central	**8,013,709**	**4,383,286**	**54.7**	**2,209,792**	**27.6**	**542,119**	**6.7**	**878,512**	**11.0**
Ia.	2,651,477	1,342,750	50.7	54,056	2.0	453,379	17.1	801,292	30.2
Kans.	1,467,528	1,184,659	80.7	282,869	19.3	–	–	–	–
Minn.	1,493,069	1,109,588	74.3	383,481	25.7	–	–	–	–
Mo.	967,799	190,111	19.6	700,468	72.4	–	–	77,220	8.0
Nebr.	492,074	157,452	32.0	285,100	58.0	49,522	10.0	–	–
N.D.	555,120	217,006	39.1	338,114	60.9	–	–	–	–
S.D.	386,642	181,720	47.0	165,704	42.9	39,218	10.1	–	–
South Atlantic	**23,177,051**	**18,430,184**	**79.5**	**4,123,080**	**17.8**	**520,237**	**2.2**	**103,550**	**0.5**
Del.	520,234	341,926	65.7	178,308	34.3	–	–	–	–
D.C.	1,191,387	942,671	79.1	248,716	20.9	–	–	–	–
Fla.	4,812,518	2,865,258	59.5	1,836,678	38.2	7,032	0.1	103,550	2.2
Ga.	2,491,021	2,314,836	92.9	176,185	7.1	–	–	–	–
Md.	4,099,500	3,979,882	97.1	119,618	2.9	–	–	–	–
N.C.	2,462,601	1,508,698	61.3	577,198	23.4	376,705	15.3	–	–
S.C.	1,680,965	1,126,038	67.0	461,927	27.5	93,000	5.5	–	–
Va.	5,179,715	4,919,045	95.0	217,170	4.2	43,500	0.8	–	–
W. Va.	739,110	431,830	58.4	307,280	41.6	–	–	–	–
East South Central	**8,007,705**	**5,571,780**	**69.6**	**2,066,128**	**25.8**	**146,173**	**1.8**	**223,624**	**2.8**
Ala.	3,245,304	2,095,212	64.6	1,150,092	35.4	–	–	–	–
Ky.	1,883,348	1,332,330	70.7	327,394	17.4	–	–	223,624	11.9
Miss.	913,543	257,928	28.2	509,842	55.8	145,773	16.0	–	–
Tenn.	1,965,510	1,886,310	96.0	78,800	4.0	400	<0.1	–	–
West South Central	**7,366,708**	**5,589,181**	**75.9**	**1,606,666**	**21.8**	**–**	**–**	**170,861**	**2.3**
Ark.	–	–	–	–	–	–	–	–	–
La.	2,071,462	1,767,176	85.3	304,286	14.7	–	–	–	–
Okla.	1,072,246	537,005	50.1	364,380	34.0	–	–	170,861	15.9
Tex.	4,223,000	3,285,000	77.8	938,000	22.2	–	–	–	–
Mountain	**8,222,387**	**5,132,337**	**62.4**	**2,792,417**	**34.0**	**297,633**	**3.6**	**–**	**–**
Ariz.	1,301,197	599,852	46.1	701,345	53.9	–	–	–	–
Colo.	1,423,000	656,000	46.1	712,000	50.0	55,000	3.9	–	–
Ida.	1,404,600	851,027	60.6	448,573	31.9	105,000	7.5	–	–
Mont.	337,334	167,503	49.7	169,481	50.2	350	0.1	–	–
Nev.	682,618	463,152	67.9	213,666	31.3	5,800	0.8	–	–
N.M.	1,395,200	1,259,200	90.3	31,100	2.2	104,900	7.5	–	–
Utah	1,309,253	925,409	70.7	357,261	27.3	26,583	2.0	–	–
Wyo.	369,185	210,194	56.9	158,991	43.1	–	–	–	–
Pacific	**17,921,138**	**13,275,563**	**74.1**	**1,801,487**	**10.0**	**2,844,088**	**15.9**	**–**	**–**
Alaska	1,375,000	1,243,400	90.4	82,300	6.0	49,300	3.6	–	–
Cal.	12,401,316	8,827,080	71.2	1,006,169	8.1	2,568,067	20.7	–	–
Hawaii	1,073,956	955,971	89.0	117,985	11.0	–	–	–	–
Ore.	1,309,545	875,791	66.9	332,033	25.3	101,721	7.8	–	–
Wash.	1,761,321	1,373,321	78.0	263,000	14.9	125,000	7.1	–	–
Territories	**934,035**	**836,443**	**89.6**	**97,592**	**10.4**	**–**	**–**	**–**	**–**
Guam	150,535	98,228	65.3	52,307	34.7	–	–	–	–
P.R.	783,500	738,215	94.2	45,285	5.8	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

Lab & Region	Total Lab Expenditure
New England	
Conn.	3,811,134
Mass.	3,892,828
Me.	826,076
N.H.	372,032
R.I.	2,134,325
Vt.	449,581
Middle Atlantic	
N.J.	4,195,867
N.Y.	—
Pa.	2,543,500
East North Central	
Ill.	2,553,300
Ind.	2,325,953
Mich.	9,270,150
Ohio	2,789,688
Wisc.	2,947,780
West North Central	
Ia.	2,651,477
Kans.	—
Minn.	1,493,069
Mo.	967,799
Nebr.	492,074
N.D.	555,120
S.D.	386,642
South Atlantic	
Del.	520,234
D.C.	1,191,387
Fla.	4,812,518
Ga.	2,491,021
Md.	4,099,500
N.C.	2,462,601
S.C.	1,680,965
Va.	5,179,715
W. Va.	739,110
East South Central	
Ala.	—
Ky.	1,883,348
Miss.	913,543
Tenn.	1,965,510
West South Central	
Ark.	—
La.	—
Okla.	1,072,246
Tex.	4,223,000
Mountain	
Ariz.	1,301,197
Colo.	1,423,000
Ida.	1,404,600
Mont.	337,334
Nev.	682,618
N.M.	1,395,200
Utah	1,309,253
Wyo.	—
Pacific	
Alaska	1,375,000
Cal.	—
Hawaii	1,073,956
Ore.	1,309,545
Wash.	1,761,321
Territories	
Guam	150,535
P.R.	—
V.I.	—

#This amount includes one or more oth

* Expenditure spread across categories i

Table 3-3

SUMMARY OF TOTAL LABORATORY EXPENDITURE BY WORKLOAD CATEGORY AND PERCENTAGE OF CATEGORY TO TOTAL EXPENDITURE

Lab & Region	Total Lab Expenditure	I Diagnostic Bacteriology		II Mycology		III Parasitology		IV Virology		V Immunology		VI Hematology		VII Clinical Chemistry		VIII Pathology		IX Environmental Microbiology		X Environmental Chemistry		XI Occupational Health/Safety		XII Toxicology		XIII Lab Improvement Program		XIV Biol., Reagent Media Prod.		XV Research & Development		XVI Administrative Support & Other	
		$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%
New England																																	
Conn.	3,811,134	353,002	9.3	15,353	0.4	67,904	1.8	69,904	1.8	195,556	5.1	38,111	1.0	195,556	5.1	15,359	0.4	119,334	3.1	503,967	13.2	83,845	2.2	414,225	10.9	195,556	5.2	114,334	3.0	20,358	0.5	1,408,770	37.0
Mass.	3,892,828	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Me.	826,076	230,281	27.9	2,790	0.3	361	<0.1	62,455	7.6	55,267	6.7	–	–	37,950	4.6	–	–	78,420	9.5	70,146	8.5	176,697	21.4	–	–	42,475	5.1	–	–	–	–	69,234	8.4
N.H.	372,032	251,768#	67.7	I		I		I		25,263	6.8	–	–	17,094	4.6	–	–	–	–	–	–	–	–	4,326	1.1	–	–	–	–	–	–	73,581	19.8
R.I.	2,134,325	245,385#		I		I	11.5	–	–	148,119	6.9	–	–	134,044	6.3	–	–	267,953	12.6	489,440	22.9	74,145	3.5	379,011	17.8	19,081	0.9	34,706	1.6	–	–	342,441	16.0
Vt.	449,581	87,000	19.4	5,000	1.1	12,000	2.7	35,000	7.8	74,000	16.5	–	–	–	–	–	–	48,000	10.7	44,000	9.8	–	–	37,000	8.2	1,581	0.3	33,000	7.3	–	–	73,000	16.2
Middle Atlantic																																	
N.J.	4,195,867	522,645	12.5	–	–	–	–	655,580	15.6	154,480	3.7	–	–	838,325#	20.0	–	–	–	–	VII		–	–	–	–	440,912	10.5	–	–	130,211	3.1	1,453,714	34.6
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	2,543,500	468,128#	18.4	I		I		454,798#	17.9	IV		406,871#	16.0	VI		–	–	–	–	–	–	–	–	144,079	5.7	265,878	10.4	–	–	–	–	803,746	31.6
East North Central																																	
Ill.	2,553,300	406,000	15.9	27,000	1.1	29,000	1.1	240,000	9.4	216,000	8.5	–	–	–	–	–	–	220,000	8.6	251,000	9.8	–	–	298,000	11.7	217,000	8.5	176,000	6.9	–	–	473,300	18.5
Ind.	2,325,953	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mich.	9,270,150	2,408,786#	26.0	I		I		I		I		I		I		I		–	–	–	–	–	–	–	–	237,616	2.6	1,920,831	20.7	1,643,578	17.7	3,059,339	33.0
Ohio	2,789,688	482,198	17.3	37,923	1.4	21,244	0.7	228,102	8.2	105,920	3.8	7,300	0.3	171,872	6.2	–	–	113,101	4.0	482,897	17.3	90,297	3.2	359,135	12.9	122,739	4.4	121,389	4.3	–	–	445,571	16.0
Wisc.	2,947,780	292,288	9.9	57,155#	1.9	II		300,755	10.2	330,364	11.2	–	–	231,648	7.9	221,454	7.5	27,735	0.9	69,249	2.4	–	–	87,191	3.0	–	–	80,211	2.7	–	–	1,249,730	42.4
West North Central																																	
Ia.	2,651,477	658,142	24.8	25,271	1.0	20,085	0.8	94,498	3.6	612,428	23.1	–	–	6,050	0.2	–	–	181,426	6.8	748,879	28.2	115,695	4.4	72,599	2.7	116,404	4.4	I – XIII *	–	I – XIII *	–	I – XIII *	
Kans.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Minn.	1,493,069	263,520	17.7	36,494	2.4	39,309	2.6	293,625	19.7	395,835	26.5	–	–	133,506	8.9	56,879	3.8	–	–	–	–	–	–	–	–	173,104	11.6	38,731	2.6	–	–	62,066	4.2
Mo.	967,799	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nebr.	492,074	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.D.	555,120	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S.D.	386,642	103,709#	26.8	I		I		I		I		–	–	–	–	–	–	109,290#	28.3	IX		–	–	–	–	52,733	13.6	–	–	–	–	120,910	31.3
South Atlantic																																	
Del.	520,234	51,389	9.9	1,689	0.3	2,867	0.6	81,783	15.7	28,008	5.4	9,359	1.8	7,682	1.5	108,535	20.9	42,253	8.1	50,332	9.7	127	<0.1	7,475	1.4	7,989	1.5	–	–	–	–	120,746	23.2
D.C.	1,191,387	202,918	17.0	69,851	5.9	13,121	1.1	–	–	125,567	10.6	83,812	7.0	71,828	6.0	117,402	9.9	40,741	3.4	78,924	6.6	–	–	168,799	14.2	66,593	5.6	25,312	2.1	–	–	126,519	10.6
Fla.	4,812,518	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ga.	2,491,021	797,126	32.0	37,365	1.5	102,131	4.1	221,700	8.9	473,293	19.0	72,240	2.9	117,078	4.7	–	–	12,506	0.5	–	–	12,410	0.5	206,754	8.3	–	–	114,586	4.6	–	–	323,832	13.0
Md.	4,099,500	911,534	22.2	9,367	0.2	17,798	0.4	120,853	3.0	694,622	16.9	216,245	5.3	433,443	10.6	302,934	7.4	344,376	8.4	829,761	20.2	85,311	2.1	20,385	0.5	112,871	2.8	–	–	–	–	I – XIII *	
N.C.	2,462,601	397,061#	16.1	I		I		I		654,536	26.6	–	–	353,161	14.3	356,401	14.5	–	–	535,639	21.8	–	–	–	–	165,803	6.7	I		–	–	–	–
S.C.	1,680,965	229,355	13.6	49,844	3.0	64,331	3.8	82,171	4.9	235,924	14.0	75,153	4.5	84,193	5.0	–	–	84,123	5.0	137,432	8.2	–	–	74,818	4.5	24,354	1.5	4,174	0.2	–	–	535,093	31.8
Va.	5,179,715	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
W. Va.	739,110	157,968#	21.4	I		I		45,065	6.1	50,078	6.8	I		69,472	9.4	63,698	8.6	76,148	10.3	–	–	–	–	–	–	54,762	7.4	165,853#	22.4	–	–	XIV56,066	7.6
East South Central																																	
Ala.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ky.	1,883,348	141,251	7.5	23,542	1.2	23,542	1.2	47,084	2.5	258,960	13.8	70,626	3.7	70,626	3.7	–	–	141,251	7.5	188,335	10.0	94,167	5.0	117,709	6.2	70,626	3.7	–	–	–	–	635,629	34.0
Miss.	913,543	289,302#	31.7	I		147,634#	16.2	III		III		I		49,132	5.4	–	–	195,812	21.4	83,716	9.1	–	–	–	–	–	–	–	–	–	–	147,947	16.2
Tenn.	1,965,510	262,285	13.3	17,286	0.9	30,124	1.5	83,825	4.3	110,302	5.6	28,053	1.4	–	–	–	–	90,016	4.6	–	–	–	–	281,660	14.3	–	–	110,774	5.7	–	–	951,185	48.4
West South Central																																	
Ark.	–	–	–	–	–			–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	1,072,246	270,206	25.2	16,084	1.5	24,662	2.3	80,418	7.5	276,639	25.8	21,445	2.0	62,190	5.8	–	–	189,788	17.7	34,312	3.2	–	–	–	–	71,840	6.7	–	–	24,662	2.3	I – XV *	
Tex.	4,223,000	1,955,093	46.3	–	–	130,340	3.1	169,441	4.0	690,799	16.4	–	–	508,324	12.0	–	–	–	–	586,528	13.9	–	–	–	–	182,475	4.3	–	–	–	–	–	–
Mountain																																	
Ariz.	1,301,197	235,031	18.0	12,069	0.9	–	–	322,338	24.8	233,815	18.0	19,466	1.5	–	–	–	–	218,670	16.8	122,028	9.4	16,480	1.3	–	–	121,300	9.3	–	–	–	–	–	–
Colo.	1,423,000	616,500#	43.3	I		I		I		I		–	–	–	–	–	–	I		505,500#	35.5	X		55,000	3.9	246,000#	17.3	I		–	–	XIII	
Ida.	1,404,600	1,034,161#	73.6	I		I		I		I		I		–	–	–	–	I		I		–	–	349,139	24.9	21,300	1.5	I		–	–	–	–
Mont.	337,334	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nev.	682,618	81,913#	12.0	I		I		6,826	1.0	40,957	6.0	13,652	2.0	13,652	2.0	–	–	40,957	6.0	177,484	26.0	–	–	–	–	54,609	8.0	54,609	8.0	–	–	197,959	29.0
N.M.	1,395,200	188,600#	13.5	I		I		235,500#	16.9	IV		IV		22,900	1.6	–	–	167,200	12.0	346,000#	24.8	X		171,700	12.3	48,900	3.5	I		–	–	214,400	15.4
Utah	1,309,253	459,547#	35.1	I		I		I		I		I		–	–	–	–	185,521	14.2	461,119#	35.2	X		112,858	8.6	90,208	6.9	–	–	–	–	I – XIII *	
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific																																	
Alaska	1,375,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hawaii	1,073,956	471,950#	44.0	I		I		I		I		–	–	400,882#	37.3	–	–	79,776	7.4	VII		–	–	VII		33,982	3.2	–	–	–	–	87,366	8.1
Ore.	1,309,545	183,644#	14.0	I		I		124,852	9.5	256,138	19.6	–	–	183,091	14.0	–	–	127,213	9.7	–	–	–	–	–	–	67,628	5.2	–	–	–	–	366,979	28.0
Wash.	1,761,321	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Territories																																	
Guam	150,535	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

#This amount includes one or more other categories which are indicated by the Roman numeral heading this column.

* Expenditure spread across categories indicated.

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL)

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ala.	Federal				
	Medicaid — Sickle Cell (Electrophoretic separation of filter paper blood specimens for the detection of abnormal hemoglobins)	Micro V Micro IV Micro II Micro I Lab Tech II Clerk Typist II	.33 .50 .75 .75 .75 .88	Pers. Supp. Equip. Other Total	72,936 2,102 2,658 853 78,549
	Medicaid — Intestinal Parasites (Microscopic examination of formalized specimens for the detection of Helminth and Protozoa.)	Micro IV Micro III Micro I Lab Tech II Lab Tech I Clerk Steno II Clerk Typist II	.30 .50 .85 .75 .33 .33 .31	Pers. Supp. Equip. Other Total	62,429 5,339 1,312 2,571 71,651
	Medicaid — Pinworm, Microscopic (Examination of taped slide preparation for the detection of pinworm.)	Micro IV Micro III Lab Tech II Clerk Steno I Clerk Typist II	.05 .10 .20 .10 .06	Pers. Supp. Equip. Other Total	6,557 1,056 583 992 9,188
	Medicaid — Lead	Micro V Micro IV Micro I Clerk Typist II	.05 .33 1.0 .33	Pers. Supp. Equip. Other Total	22,540 14,400 36,000 1,800 74,740
Alaska	Federal				
	VD Control (Laboratory support)	—	3.0	Pers. Total	33,900 33,900
	Alaska Native Health Service — TB Contract (TB laboratory support)	—	—	Supp. Total	18,700 18,700
	314(d) Funds (Rubella serology screening)	—	1.0	Pers. Total	28,000 28,000
	ANHS — Environmental Chemistry — U.S. Forest Service (Chemical analysis on well water samples)	—	—	Supp. Total	8,000 8,000
	State				
	Dept. of Public Safety (Breathalyzer documentation)	—	1.0	Pers. Supp. Other Total	26,000 4,000 4,000 34,000
	Dept. of Fish and Game (IHNV vaccine preparation)	—	1.0	Pers. Supp. Equip. Other Total	15,000 9,000 5,000 1,000 30,000
Ariz.	Federal				
	Highway Safety Project (Blood alcohol certification)	Chemist III Typist II	.1 .1	Supp. Total	1,560 1,560
	HIB (Medicare) (Laboratory certification)	Lab. Cons. Surveyor	1.0	Pers. Supp. Equip. Other Total	28,624 1,378 1,014 4,285 35,301

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ariz. (Cont.)	EPA – Safe Drinking Water (Environmental lab. certification)	Cons. Surveyor Typist II	1.0 1.0	Pers. Supp. Equip. Other Total	8,765 1,826 315 3,346 14,252
	EPA – Air Pollution (Laboratory analysis of samples)	Chemist III	1.0	Pers: Supp. Other Total	21,927 1,225 221 23,373
	EPA – Water Pollution (Laboratory analysis of samples)	Chemist III	1.0	Pers. Total	21,060 21,060
	EPA – Lab. Training Project (Environmental laboratory personnel training)	–	–	Other Total	1,365 1,365
	FDA – Interstate Travelers Food-Plant Inspection (Laboratory analysis of samples)	Micro.	0.2	Supp. Total	520 520
	State				
	State Dairy Commissioner (Laboratory analysis of samples)	Chemist II Lab. Tech. II Typist II	1.0 3.0 1.0	Pers. Supp. Equip. Other Total	65,927 15,705 4,482 442 86,556
	Industrial Commission Contract (OSHA) (Laboratory analysis of samples)	Chemist III Lab. Tech. I	1.0 1.0	Pers. Supp. Other Total	31,559 1,070 1,091 33,720
Cal.	Federal				
	DHEW Extramural Programs, National Institute of Allergy and Infectious Diseases (NIAID) (Studies on the pathogenesis of Naegleria infections)	Research Spec. II Lab. Asst.	1.0 1.0	Pers. Supp. Other Total	46,327 2,128 900 49,355
	U.S. Army Medical Research and Development Command (Development of psoralen photoinactivated alphavirus and arenavirus vaccines)	Research Spec. II Lab. Asst.	1.0 0.8	Pers. Supp. Other Total	38,510 6,700 17,270 62,480
	National Institutes of Health, Procurement Branch/National Cancer Institute (NCI) (NCI collaborative studies – cancer virus studies)	P.H. Micro I P.H. Lab. Tech. Animal Tech.	1.0 1.0 2.0	Pers. Supp. Other Total	63,275 10,021 28,614 101,910
	DHEW Extramural Programs, NIAID (Electron microscopic studies of selected viral agents)	Research Asst. III Animal Tech. III	0.8 1.0	Pers. Supp. Equip. Other Total	34,487 6,828 1,000 900 43,215
	DHEW Extramural Programs National Institutes of Health (Postdoctoral training program in microbiology)	Lab. Asst. Post Doc's	1.0 3.0	Pers. Supp. Equip. Other Total	42,201 3,000 1,200 7,012 53,413

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Cal. (Cont.)	**DHEW Extramural Programs, NIAID** (Immunology and epidemiology of certain viral diseases)	Research Spec. P.H. Micro I Lab. Asst./ An. Tech. II	1.0 3.8 4.7	Pers. Supp. Equip. Other Total	124,810 9,800 2,100 1,750 138,460
	Environmental Protection Agency (Improvement and evaluation of methods for sulfate analysis)	Res. Spec. III Chem. II Res. Tech. Std. Asst.	0.5 1.0 0.5 0.5	Pers. Supp. Other Total	36,447 1,647 15,546 53,640
	(Calibration of particulate mass monitors)	Res. Spec. III Res. Spec. I	0.2 0.5	Pers. Supp. Equip. Other Total	13,423 1,500 900 8,444 24,267
	(Conference on Methods in Air Pollution Studies)	Chem. III	0.3	Pers. Supp. Other Total	9,446 40 7,714 17,200
	(Community Study on Pesticides)	Res. Spec. III Chem. II Off. Asst. II Youth Aid	2.0 2.0 1.0 0.5	Pers. Supp. Other Total	147,273 1,500 44,164 192,937
	(Pilot Study of Acute Bronchitis and Its Relation to Air Pollution)	Epidem. Interviewer II	—	Pers. Equip. Other Total	11,084 488 7,052 18,624
	State **Water Resources Control Board, Division of Planning and Research** (Water Virology Laboratory Unit. Develop and evaluate procedures for virus concentration and removal from water. Develop laboratory techniques for virus assay of water samples, evaluation of waste water treatment systems, and health significance of viruses in water environment.)	Research Spec. IV P.H. Micro II Senior Lab. Asst.	1.0 1.0 1.0	Pers. Other Total	81,725 18,275 100,000
	Department of Transportation (Air quality equipment calibration)	Chem. I	1.8	Pers. Supp. Equip. Other Total	40,847 4,200 10,000 19,953 75,000
	Private **National Multiple Sclerosis Society** (Immunology of Multiple Sclerosis — viral antibody studies)	P.H. Micro I Lab. Asst.	2.0 0.25	Pers. Supp. Other Total	47,817 4,796 12,000 64,615
	National Science Foundation (Cytogenetic and immunologic studies on virus — induced cell transformation in marsupial cell cultures.)	P.H. Micro. I	1.0	Pers. Supp. Other Total	9,054 2,582 3,364 15,000

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Colo.	Federal				
	Division of Highway Safety (D.O.T.) (Alcohol test laboratory)	Implied Consent Specialist	3.0	Pers. Supp. Equip. Other Total	67,500 6,500 4,300 9,200 87,500
Conn. . . .	Federal			Pers. Supp. Total	288,513 24,415 312.928
	Maternal and Child Hygiene (Lead screening)	Chemist	1.0	Pers. Total	16,396 16,396
	(Streptococcus cultures)	Lab. Helper	1.0	Pers. Total	9,712 9,712
	(PKU program)	Lab. Helper	1.0	Pers. Total	10,367 10,367
	Medicare (Laboratory improvement)	Clerk III Supv. Med. Exam. Med. Examiners	1.0 0.8 1.6	Pers. Total	64,982 64,982
	EPA (Safe Water Act)	Conn. Careers Lab. Helper	0.08 1.0	Pers. Total	9,407 9,407
	Public Health Service Block Grants (Radiological health)	Sr. Env. Chem.	1.0	Pers. Total	21,867 21,867
	(Organohalides in water)	Chemist	1.0	Pers. Total	15,947 15,947
	(Community health screening)	Assist. Biochem.	1.0	Pers. Total	21,867 21,867
	(Food-borne diseases testing)	Sr. Micro.	1.0	Pers. Total	19,936 19,936
	(Gonorrhea screening)	Micro.	1.0	Pers. Total	15,245 15,245
	(Inborn errors)	Med. Tech.	1.0	Pers. Total	13,834 13,834
	(Toxicology reports)	Typist	1.0	Pers. Total	9,421 9,421
	(Laboratory animal care)	Pub. Health Lab. Asst. I	1.0	Pers. Total	10,506 10,506
	(Lab. equipment maintainer)	Maintainer Foreman	1.0	Pers. Total	15,673 15,673
	(Virology)	Micro.	1.0	Pers. Total	15,257 15,257
	(V.D. control)	Sr. Micro.	1.0	Pers. Total	18,096 18,096

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
D.C.	**Federal**				
	Dept. of HEW	Med. Tech.	2.0	Pers.	26,500
	(Lab tests for gonorrhea)	Clerk	.5	Supp.	31,000
				Total	57,500
	(Lab tests to detect lead level)	Chemist	2.0	Pers.	41,900
		Tech.	1.0	Supp.	8,000
				Total	49,900
	HEW Children's Bureau				
	(Lab tests to detect presence of disease in infants, youths, and mothers.)	Chemist	1.0	Pers.	80,000
		Tech.	5.0	Total	80,000
Ga.	**Federal**				
	Sexually Transmitted Disease Unit	Lab. Assoc. II	1.0	Pers.	68,004
	(GC culture program)	Lab. Sc. II	1.0	Supp.	38,853
		Lab. Tech. II	3.0	Total	106,857
		Clerical	2.0		
	Division of Mental Health	Lab. Assoc. II	1.0	Pers.	119,645
	(Urine test for abuse drugs)	Lab. Assoc. I	1.0	Supp.	38,000
		Lab. Tech. III	2.0	Other	18,500
		Lab. Tech. II	2.0	Total	176,145
		Clerical	1.0		
	Adult Health Unit	Lab. Sc. II	1.0	Pers.	12,288
	(Hypertension program)			Supp.	10,000
				Total	22,288
Hawaii	**Federal**				
	314(d)	Micro.	3.0	Pers.	77,237
	(Public health laboratory support)	Lab Asst.	3.0	Total	77,237
	EPA	—	—	Supp.	22,425
	(Water pollution studies)			Equip.	18,323
				Total	40,748
Ida.	**Federal**				
	Traffic Safety Commission	Criminalist	2.4	Pers.	35,799
	(Analysis of blood and breath for alcohol — DWI)	Chemist	—	Supp.	26,282
		Sec.	—	Equip.	3,609
				Total	65,690
	Dept. of Law Enforcement	Sec.	1.0	Pers.	9,644
	(Handling reports associated with alcohol testing)			Supp.	18,356
				Total	28,000
	Environmental Protection Agency	Chem. III	0.25	Supp.	4,390
	(Analysis of mothers' milk for pesticides)			Equip.	3,797
				Total	8,187
	(Establishment and maintenance of certification program for water testing labs.)	Chem. III	0.3	Pers.	12,750
		Sec.	0.75	Supp.	3,156
				Equip.	4,735
				Total	20,641
	Law Enforcement Planning Commissions	Chem. I	1.0	Pers.	14,330
	(Support of satellite forensic lab. services in two branch laboratories)	Sec.	1.0	Supp.	5,655
				Equip.	32,428
				Total	52,413

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses
Ida. (Cont.)	State Departments of Transportation, Parks and Recreation, Fish and Game, Water Resources, Agriculture, Correction, Probation and Parole. (Agreements to provide laboratory services on a cost/test basis.)	—	—	Funds not budgeted.
	Local City of Spokane, Wash. (Bacteriological and chemical analyses of samples submitted from aquifer study)	Micro. III Chem. II	1.3 —	Pers. 17,252 Supp: 4,956 Equip. 1,541 Other 23,749
Ia.	Federal CDC (To expand existing proficiency testing program)	—	1.0	Pers. 8,825 Supp. 3,299 Other 5,340 Total 17,464
	(To provide a continuing education program via a mobile library to clinical labs throughout Iowa)	—	1.6	Pers. 12,334 Supp. 9,227 Equip. 4,099 Other 12,503 Total 38,163
	FDA (To do national x-ray trend survey)	—	0.5	Pers. 3,015 Other 2,259 Total 5,274
	Medicare (Surveys of hospital laboratories to insure compliance with Medicare standards.)	—	1.5	Pers. 33,054 Other 14,470 Total 47,524
	NIOSH (Analytical services as part of a subcontract for a coal liquefaction study)	—	1.0	Supp. 3,145 Equip. 24,099 Total 27,244
	State Industrial Hygiene (Providing laboratory services to the Iowa Bureau of Labor)	—	3.4	Pers. 52,421 Supp. 7,993 Equip. 3,768 Other 17,021 Total 81,203
	Air Quality (Providing laboratory services for air quality monitoring to the Iowa Dept. of Environmental Quality)	—	3.0	Pers. 54,649 Supp. 25,136 Equip. 102,872 Other 21,331 Total 203,988
	DEQ (Sampling and analytical services for a non-point runoff study)	—	1.5	Pers. 25,325 Supp. 5,418 Equip. 22,732 Other 10,120 Total 63,595
	(Providing laboratory services for water quality surveillance)	—	5.0	Pers. 78,822 Supp. 7,169 Equip. 171,913 Other 30,694 Total 288,598

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ia. (Cont.)	**Rubella Screening** (Screening of prenatal sera for rubella-susceptible mothers)	—	2.0	Pers. Supp. Other **Total**	27,283 2,908 4,256 34,447
	Gonorrhea Culture Program (Providing culture services to physicians to detect asymptomatic patients)	—	1.0	Pers. Supp. Other **Total**	11,988 4,724 17,826 34,538
Kans.	**Federal**				
	Venereal Disease Control Project (Gonorrhea culture screening of OB/GYN patients in private and public clinics)	Micro Lab. Tech. Clerical	1.0 0.5 0.2	Supp. **Total**	8,926 8,926
	EPA Water Pollution Control Project (Laboratory support for National Pollution Discharge Elimination System)	Chemist Micro Lab. Tech.	3.0 1.0 2.0	Pers. **Total**	41,551 41,551
	EPA Water Supply Program (Laboratory support for Safe Drinking Water Act requirements.)	Chemist Lab. Tech.	2.0 1.0	Pers. **Total**	29,922 29,922
	EPA Air Quality Program (Laboratory support for sulfur dioxide and particulate monitoring including suspended particulate analysis from 56 sites in state and continuous monitoring calibrations support for 5 sites.)	Chemist Clerical	0.75 0.1	Pers. **Total**	16,683 16,683
	Occupational Health (Provide analytical support for on-site consultation services at employer's work site.)	Chemist	1.0	Supp. **Total**	1,450 1,450
	Private				
	Harvard Air/Lung Study (Laboratory analytical services related to ambient air monitoring.)	Chemist	0.25	Other **Total**	5,380 5,380
Ky.	**Federal**				
	Division of Maternal and Child Health (PKU, Rh, and galactosemia testing)	Micro	3.0	Pers. Supp. Equip. Other **Total**	62,086 12,047 199 3,606 77,938
	Natural Resources and Environmental Protection (Bacterial and chemical testing of public water)	Micro Chemist Surveyor	3.0 3.0 1.0	Pers. Supp. Equip. Other **Total**	129,942 19,265 5,959 18,934 174,100
	Department of Labor (Analysis of occupational samples and specimens)	Chemist Lab Aid	2.5 0.5	Pers. Supp. Equip. Other **Total**	49,056 7,143 8,908 12,893 78,000
	Proficiency Testing (PT for approximately 210 laboratories)	Lab Aid Clerk Technologist Micro	1.0	Pers. Supp. Equip. Other **Total**	9,660 4,798 3,558 640 18,656

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ky. (Cont.)	Laboratory Training (Training workshop for several clinical laboratories throughout state)	Micro Consultant	0.5	Pers. Supp. Equip. Other Total	5,838 212 544 1,663 8,257
La.	Federal and State Bureau of Personal Health Services (Maternal and child health)	—	—	Pers. Supp. Other Total	91,715 6,248 7,850 105,813
	(Women, infants and children—food)	—	—	Pers. Supp. Other Total	1,418 47 121 1,636
	Bureau of Environmental Services (Safe drinking water)	—	—	Pers. Supp. Other Total	165,437 11,270 14,161 190,868
	(Interstate carrier inspection)	—	—	Pers. Supp. Other Total	546 37 47 630
	(Food inspection)	—	—	Pers. Supp. Other Total	4,628 315 396 5,339
	State Bureau of Personal Health Services (Venereal disease control)	—	—	Pers. Supp. Other Total	75,772 5,162 6,486 87,420
	(Early periodic screening and diagnostic testing)	—	—	Pers. Supp. Other Total	11,617 791 994 13,402
	(Family planning)	—	—	Pers. Supp. Other Total	62,223 4,238 5,326 71,787
	(Turberculosis control)	—	—	Pers. Supp. Other Total	42,343 2,885 3,624 48,852
	(Other personal health activities)	—	—	Pers. Supp. Other Total	76,885 5,239 6,581 88,705

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
La. (Cont.)	**Bureau of Environmental Services** (Retail Food Sanitarian)	—	—	Pers. Supp. Other Total	40,677 2,771 3,482 46,930
	(Safe drinking water)	—	—	Pers. Supp. Other Total	53,325 3,633 4,564 61,522
	(Water pollution)	—	—	Pers. Supp. Other Total	27,130 1,848 2,322 31,300
	(Oyster seed)	—	—	Pers. Supp. Other Total	7,304 498 625 8,427
	(Occupational health)	—	—	Pers. Supp. Other Total	43 3 4 50
	(Food inspection)	—	—	Pers. Supp. Other Total	151,654 10,331 12,981 174,966
	(Milk and dairy inspection)	—	—	Pers. Supp. Other Total	581,810 39,635 49,800 671,245
	(Solid waste)	—	—	Pers. Supp. Other Total	83 6 7 96
	(Retail Food Sanitarian)	—	—	Pers. Supp. Other Total	1,093 74 94 1,261
	(Other environmental activities)	—	—	Pers. Supp. Other Total	6,816 464 584 7,864
	Personal Health and Environmental Services (Administration and general support)	—	—	Pers. Supp. Equip. Other Total	377,014 25,683 18,381 32,271 453,349
Me.	Federal **Medicare-Medicaid** (Laboratory surveillance for hospital services licensure)	Lab Surveyor	1.0	Pers. Supp. Total	15,013 2,000 17,013

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Md.	Federal				
	Cervical Cancer Screening Program (Pap smear screening of women who are ineligible for other public health programs)	Lab. Asst. Lab. Sci. II Lab. Sci. I Typ. Clk. II	1.0 1.0 1.0 1.0	Pers. Supp. Equip. Other **Total**	18,834 1,581 329 3,475 **24,219**
	Air Quality Control Program (Constant monitoring of air throughout state for pollutants)	—	—	Pers. **Total**	30,613 30,613
	Safety and Occupational Health Act, Division of Labor and Industry (Laboratory testing of samples submitted by the MOSHA Program)	Lab. Sci. III Lab. Sci. I Lab. Assts.	2.0 1.0 3.0	Pers. Supp. Equip. Other **Total**	32,305 4,199 642 4,242 **41,388**
	State				
	Crippled Children's Program (Testing for inborn errors of metabolism in newborns)	—	—	Supp. **Total**	21,739 **21,739**
Mich.	Federal	Sec.	1.0	Pers.	62,330
	Cancer Contract (Test of drugs for use in treatment)	Micro Lab. Asst.	1.0 1.5	Supp. Equip. **Total**	1,840 1,613 **65,783**
	Brucellosis (Development of vaccine for human use)	Lab. Spec. Lab. Asst.	1.0 0.8	Pers. Supp. Equip. Other **Total**	36,660 2,628 14 553 **39,855**
	Rabies (Development of improved vaccine)	Lab. Tech.	0.6	Pers. Supp. Other **Total**	9,662 3,202 245 **13,109**
	PBB (Testing of long-term study of exposed persons)	Sec. Med. Tech. Typist Student Asst. Chem. Lab. Asst. Stat.	1.0 5.0 0.5 0.3 2.0 4.8 1.4	Pers. Supp. Equip. Other **Total**	226,446 61,169 11,843 18,346 **317,804**
	Glyco-peptid (Preparation of anti-cancer compounds)	Chem.	0.4	Pers. Supp. **Total**	8,714 14,461 **23,175**
	Proficiency Testing Contract (Blind proficiency testing)	Lab. Eval. Lab. Spec.	0.3 —	Pers. Supp. Other **Total**	6,347 7,781 137 **14,265**
	Pesticides (Analysis of tissue for pesticides)	Adm. Steno. Sec. Field Rep. Lab. Asst. Chem.	0.6 1.0 1.0 2.0 2.0 1.0	Pers. Supp. Equip. Other **Total**	155,255 12,343 2,328 11,751 **181,677**
	Neonatal Hypothyroid Testing (Thyroid function)	Lab. Asst. Micro.	2.0 0.4	Pers. Supp. Equip. **Total**	32,118 17,343 5,524 **54,985**

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Mich. (Cont.)	Private	—	—	Supp.	408
	Influenza contract (Lyophilization of vaccine)			Total	408
	Red Cross (Research to develop blood fractions)	Chem. Lab. Tech.	1.0 1.0	Pers. Supp. Equip. Other	39,189 16,199 3,241 445
				Total	59,074
Minn.	Federal				
	DHEW, CDC (Continuing education for medical laboratory personnel.)	Med. Technologist Med. Technician Clerk-Typist	1.0 1.0 1.0	Pers. Supp. Equip. Other	14,667 3,187 19,445 3,000
				Total	40,299
Mo.	Federal				
	FDA (Laboratory tests on food samples)	Chemist	0.3		
	Division of Highway Safety (Breath alcohol maintenance and calibration program)	Chemist	0.4		
	State				
	State milk board (1. Laboratory inspection and approval) (2. Performance of lab tests on milk.)	Micro.	0.5		
	Dept. of Natural Resources (1. Bacteriological and chemical testing of public water supply) (2. Laboratory inspection)	Micro. Chemist	4.0		
Mont.	Federal				
	Maternal and Child Health (Neonatal testing for inborn errors of metabolism)	Bureau Chief Clerk Typist	0.25 1.0	Pers. Supp. Equip. Other	13,254 2,730 2,835 33,266
				Total	52,085
Nev.	Federal				
	Gonorrhea (GC culture program)	Admin. Micro. Lab. Asst. Clerical Stock Clerk	0.3 2.0 1.8 0.4 0.2	Pers. Supp. Total	20,000 16,900 36,900
	Safe Drinking Water (Water chemistry and bacteriology)	Admin. Micro. Chem. Lab. Asst. Clerk Stock Clerk	0.1 0.4 1.5 2.3 0.2 0.2	Pers. Supp. Equip. Other Total	60,715 30,238 11,504 2,310 104,767
	EPA — Air, Water (Chemistry and bacteriology)	Admin. Micro. Chemist Lab. Asst. Clerk Stock Clerk	0.1 0.1 1.5 1.0 0.1 0.1	Pers. Equip. Other Total	27,000 22,500 7,500 57,000
	314(d) (Communicable disease)	—	—	Other Total	15,000 15,000

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
N.J.	Federal				
	General Health	—	—	Pers.	476,653
				Supp.	20,000
				Equip.	47,030
				Total	543,683
	Maternal and Child Health	—	—	Pers.	78
				Total	78
	VD Case Finding			Pers.	90,137
				Other	22,447
				Total	112,584
	Crippled Children			Pers.	51,408
				Supp.	2,000
				Total	53,408
	Health Research Facilities			Equip.	20,915
				Total	20,915
	CETA Title II			Pers.	11,344
				Total	11,344
	Administrative Overhead			Equip.	47,506
				Total	47,506
	State				
	(Total State Funds)			Pers.	2,109,104
				Supp.	373,870
				Equip.	320,836
				Other	602,539
				Total	3,406,349
N.M.	Federal				
	Traffic Safety Program (Court testimony, training, auxiliary services in breath/blood alcohol testing)	Lab. Scientist (Chem)	0.9	Total	31,100
	N.M. Family Planning Council (Analyses for venereal disease)	Lab. Sci. (Micro)	1.6	Total	45,000
	VA Hospital (Analyses for tuberculosis and syphilis)	Lab. Sci. (Micro.)	0.4	Total	10,100
	State				
	Agencies outside Health and Social Services Dept. (Various laboratory analyses)	Lab. Sci. (Chem. and Micro.)	0.7	Total	21,000
	State and Local				
	Traffic Safety Program (Breath/blood analyses for local law enforcement agencies)	Lab. Sci. (Chem.)	1.0	Total	34,000
N.C.	State				
	Sickle Cell Screening Program (Screening and diagnosis of hemoglobinopathies)	P.H. Micro. II P.H. Micro. I Clk-Typ. III	0.8 1.0 1.0	Pers. Equip. Other	40,745 8,312 1,064
				Total	50,121
	Federal				
	Highway Safety Program (Preparation and distribution of ethyl alcohol solution used as calibration standard in Breathalyzers)	An. Chem. II An. Chem. I Chem. An. I Lab. Tech. Lab. Tech.	0.05 0.05 0.05 0.05 0.05	Supp. Total	1,368 1,368

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
N.C. (Cont.)	**Solid Waste Planning Project** (Chemical analyses on landfill drainage)	An. Chem. I	1.0	Pers. **Total**	17,380 **17,380**
	Safe Drinking Water Act (EPA) (Start up grant prior to assuming primary enforcement responsibility)			Equip. Other **Total**	480 766 **1,246**
	OSHA Program Administered Jointly by N.C. Depts. of Health and Labor (Analytical testing support to field engineers investigating OSHA complaints)	An. Chem. I Lab. Tech.	1.0 1.0	Pers. **Total**	28,052 **28,052**
	VD Control Project — Gonorrhea (Lab advisor who provides training/PT to participating local health depts.)	Lab. Impr.	0.5	Pers. **Total**	24,772 **24,772**
Ohio	**Federal**				
	Encephalitis			Supp. **Total**	2,584 **2,584**
	Maternal and Child Health (Newborn screening)	Chem. 3 Chem. 1 Technicians	1.0 1.0 2.0	Pers. Supp. Other **Total**	69,228 16,008 4,512 **89,748**
	Genetics (Hypothyroid screening)	Typist 2 Micro. 1	1.0 0.5	Pers. **Total**	4,905 **4,905**
	VD control	Micro. 2 Micro. 1 Technicians Technologist	1.0 1.0 3.0 1.0	Pers. Supp. **Total**	76,762 11,726 **88,488**
	Interstate Food (Food testing)	Micro. 1	0.5	Pers. **Total**	4,905 **4,905**
	Industrial Commission (Occupational chemistry)	Chem. Supv. 1 Lab. Asst. Typist 2	0.25 0.25 0.25	Pers. Supp. Equip. Other **Total**	11,000 12,905 7,597 11,943 **43,445**
	Dept. Industrial Relations (Occupational chemistry)	Chem. Supv. 1 Chem. 2 Chem. 3 Lab. Asst. Typist 2	0.25 1.0 1.0 0.25 0.25	Pers. Supp. Equip. Other **Total**	15,000 4,302 2,532 11,877 **33,711**
	Ohio River San. Comm. (Environmental chemistry)	—	—	Supp. **Total**	16,805 **16,805**
	Dept. Natural Resources (Environmental chemistry)	—	—	Supp. **Total**	6,060 **6,060**
	State				
	Sickle Cell Grant (Abnormal hemoglobin)	Chem. 1	0.5	Pers. Supp. **Total**	5,242 2,059 **7,301**

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ohio (Cont.)	Federal and State Ohio Environmental Protection Agency (Env. chemistry and microbiology)	Chem. Supv. 2 Sec. 1 Chem. Supv. 1 Chem. 2 Chem. 1 Technologist Lab. Asst. Typist 2 Typist 1 Micro. Supv. 1 Micro. 2 Micro. 1 Technician Typist 2	1.0 1.0 5.1 4.0 10.0 1.0 1.25 1.75 1.0 1.0 1.0 1.0 2.0 1.0	Pers. Supp. Equip. Other Total	482,897 102,525 37,929 19,753 643,104
Okla.	Federal Family Planning, Okla. State Dept. of Health (Gonorrhea culture and syphilis serology)	—	—	Total	17,121
	Corps of Engineers (Water microbiology)	—	—	Total	13,293
	State and Federal Water Quality Service, Okla. State Dept. of Health (Pathogenic bacteria and virus in sewage)	—	—	Total	27,092
	Venereal Disease Program, OSDH (Gonorrhea culture)	—	—	Total	56,635
	Preventive Medical Services, OSDH (Miscellaneous lab. services)	—	—	Total	46,066
	Maternal and Child Health Service, OSDH (PKU testing)	—	—	Total	1,701
	State and Local Commanche County Health Dept. (Miscellaneous lab. services)	—	—	Total	16,073
R.I.	Federal Public Health Service (Block grant for laboratory services)	Sr. Micro-TB Sr. Micro-Ref. Sr. Micro-Food Sr. Micro-PKU Scrn. Prin. Chem. Rad. Hlth. Tech.-Strep. Program Electronic Tech.-Instru. Repair	1.0 1.0 1.0 1.0 1.0 1.0 1.0	Pers. Total	152,000 152,000
	(Gonorrhea screening)	Micro. Tech.	1.0 1.0	Pers. Supp. Total	25,000 25,000 50,000
	EPA (Water chemistry)	Chemist	1.0	Pers. Total	12,000 12,000
	(Air pollution monitoring)	Chemists	4.0	Pers. Supp. Total	66,000 8,429 74,429

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
S.C.	**Federal**				
	Pesticides Contract (Laboratory analysis of human, animal and environmental samples for pesticides and herbicides are provided under subcontract with Med. Univ. S.C. which holds major contract with EPA to develop data on baseline exposure levels to these toxic substances.)	Chemist IV Chemist II Chemist I Dir., Div. Env. Hlth. Labs	1.0 1.0 0.7 0.25	Pers. **Total**	51,397 **51,397**
	Blood Lead Agreement (Analysis of blood samples for levels of lead content to determine geographical areas of high risk)	Chemist II	0.5	Pers. Supp. **Total**	7,762 2,723 **10,485**
	Private				
	COBRA **Hemoglobin Electrophoresis** (Analysis of blood for abnormal hemoglobins, especially sickle cell)	Lab. Tech. II Lab. Tech. I	0.1 0.1	Pers. Supp. **Total**	2,591 620 **3,211**
	Federal and State				
	Drug and Alcohol Rehabilitation Programs (Analysis of urine specimens for drugs of abuse and for ethanol)	Chemist III Lab. Spec.	0.9 0.9	Pers. Supp. Equip. **Total**	22,910 9,173 304 **32,387**
S.D.	**Federal**				
	Center for Disease Control Laboratory Improvement (Consultation)	Stat. Clerk Health Spec. II	1.0 1.0	Pers. Supp. Other **Total**	8,938 575 1,206 **10,719**
	Center for Disease Control Laboratory Improvement (Training)	—	—	Other **Total**	42,014 **42,014**
	State				
	DEP (Water quality & hygiene testing)	Chemist III Chemist II Chemist I Lab. Tech. II	0.75 0.75 0.25 0.25	Pers. Supp. Equip. **Total**	9,787 11,783 12,043 **33,613**
	Local				
	Contract with Cities and Towns Environmental Section (Water testing)	Chemist III Chemist II Chemist I Lab. Tech. II	0.5 0.5 0.25 0.25	Pers. Supp. **Total**	8,007 9,640 **17,647**
Tenn.	**State**				
	Department of Safety (Blood alcohol exams)	—	—	Supp. Equip. Other **Total**	12,000 5,000 128,120 **145,120**
	Medical Ecology and Toxicology (Drug analysis, solid dosage; toxicological autopsy, reimbursement)	—	—	Pers. Other **Total**	109,060 13,000 **122,060**
Tex.	**Federal**				
	Safe Drinking Water (Chemical and bacteriological analysis of drinking water)	Micro. Chemist Technician	1.0 4.0 6.0	Pers. Supp. Equip. **Total**	132,000 184,680 165,800 **482,480**

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Tex. (Cont.)	**Cooperative Meat Inspection Program** (Chemical analysis of meat products)	Chemist Support	1.0 1.0	Pers. **Total**	22,992 **22,992**
	Health Maintenance (Hypertension screening)	Med. Tech.	1.0	Pers. **Total**	16,692 **16,692**
	State **Interagency Contract with Water Resources Board** (Chemical and bacteriological analysis of drinking water)	Micro. Chemist Technician Clerical Support	2.0 5.0 5.0 1.0 3.0	Pers. **Total**	164,694 **164,694**
	EPSDT (Screening for State Welfare Dept.)	Chemist Med. Tech. Technician Clerical Support	3.0 2.0 5.0 1.0 1.0	Pers. Supp. Other **Total**	149,406 28,814 1,000 **179,220**
Utah	Federal **Center for Disease Control Laboratory Improvement** (Consultation)	Microbiologist Microbiologist Typist	1.0 0.5 0.5	Pers. Supp. Other **Total**	24,031 502 1,260 **25,793**
Vt.	Federal **VD Program** (Gonorrhea culturing)	Micro. A	0.5	Pers. **Total**	5,321 **5,321**
	EPA (Safe Drinking Water Act)	Micro. Lab. Tech.	1.0 1.0	Pers. **Total**	19,654 **19,654**
Va.	Federal **Law Enforcement Assistance Administration** (Training for law enforcement officers)	—	—	—	
Wisc.	Federal **DHEW, PHS, NIH, WI, DHSS** (Cytogenetics Unit)	—	1.75	Pers. Supp. Other **Total**	37,917 4,718 1,558 **44,193**
	(AFP screening)	—	2.0	Pers. Supp. Other **Total**	22,923 5,225 646 **28,794**
	DHEW, PHS, CDC (Erythrocyte protoporphyrin proficiency testing)	—	1.0	Pers. Supp. Other **Total**	10,791 1,141 1,581 **13,513**
	(Proficiency testing)	—	1.0	Pers. Supp. **Total**	8,343 12,222 **20,565**
	DHEW, PHS, Health Resources Adm. (Training grant)	—	0.7	Pers. Supp. **Total**	10,075 6,420 **16,495**

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL) — Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Wisc. (Cont.)	State				
	Div. of Transportation				
	(CNS depressants in Wisc. traffic fatalities)	—	1.0	Pers.	14,018
				Supp.	1,139
				Equip.	2,300
				Other	74
				Total	**17,531**
	Private				
	Becton-Dickinson	—	—	Equip.	9,232
	(Hard Glass Study)			Other	875
				Total	**10,107**
	(Serum separator eval.)	—	—	Supp.	1,272
				Total	**1,272**
	Ortho Diagnostics				
	(BKM evaluation)	—	1.0	Pers.	13,617
				Supp.	2,114
				Equip.	10,266
				Other	2,484
				Total	**28,481**
Wyo.	**Federal**	Chem. I	1.0	Pers.	34,613
	Governor's Office of Highway Safety	Chem. III	0.5	Supp.	3,504
	(Alcohol analyses, training of law enforcement personnel)	Sec. I	1.0	Equip.	6,023
				Other	11,308
				Total	**55,448**
	LEAA	Chem. III	0.5	Pers.	15,707
	(Toxicology analyses)	Chem. II	1.0	Equip.	9,062
				Other	267
				Total	**25,036**
	Medical Facilities	Med. Tech. III	0.3	Pers.	6,106
	(Lab. survey for Medicare compliance)			Other	971
				Total	**7,077**

Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ala.	Pinworms	1.25	Slide	75,136	Recycled to support services provided.
	Intestinal Parasites	3.58	Spec.		
	Sickle Cell	2.75	Spec.		
	Lead, Initial	2.00	Spec.		
	Lead, Confirmation	3.00	Spec.		
Alaska	Chemical Water Analysis	3-15	Test	8,000	Returns to General Fund.
Ariz.	VDRL (Qual. and Quant.)	2.25	Spec.	151,000	State General Fund.
	FTA	3.00	Spec.		
	Fungal Serology	2.50	Test		
	Toxoplasmosis	2.50	Test		
	Rubella	2.75	Test		
	CF or HI (CNS, Exanthem, Respiratory, Rickettsial, Enterovirus)	11.50	Test		
	TB Smear, Culture & Drug Susceptibility	7.00	Spec.		
	Mycology	5.00	Spec.		
	Bacterial Isolation and Identification	7.00	Spec.		
	Viral Isolation and Ident.	20.00	Spec.		
	Water				
	Total Coliform — MF	1.25	Sample		
	Coliform — Multiple tube	1.25	Sample		
	Routine Chemistry	28.00	Sample		
	Individual Chemistry	1.00	Test		
Colo.	Urine Test for Drugs of Abuse	2.55	Spec.	55,000	Pays cost of operation of service.
Conn.	Environmental Microbiology	1.89	Rel. Value	425,000	General Fund
	Environmental Chemistry	1.71	Rel. Value		
	Strep. Throat Culture	1.00	Test		
Ida.	Water Analyses:			128,000	$79,600 included as portion of approved budget.
	Purity Tests	5.00-7.50	Test		$25,400 supplemental appropriation for laboratory use.
	Most Probable Number Tests	6.50-10.00	Test		$23,000 reverted to State General Fund.
	BOD	7.50-10.00			
	COD	5.50-7.50			
	Complete Chemical Analyses:				
	Potable Tests (Test for arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, potassium, selenium, silver, sodium, zinc, alkalinity, ammonia, calcium, chloride, hardness, fluoride, magnesium, nitrate, silica, sulfate, total dissolved solids, pH, turbidity, color)	95-110.00	Test		
	Surface Water (Test for turbidity, pH, BOD_5, COD, total solids, ammonia, nitrate, sulfate, nitrite, O-phosphate, chloride, specific conductance, alkalinity, iron, manganese, sodium, potassium)	65-75.00	Test		
	Waste Samples (Test for turbidity, pH, BOD_5, total solids, ammonia, nitrate, nitrite, O-phosphate, COD, suspended solids, volatile solids, volatile suspended solids, settleable solids, total Kjeldahl nitrogen, total inorganic phosphate, total phosphorus.)	85-100.00	Test		
	Non-Point Source Samples (Test for turbidity, BOD_5, total solids, pH, nitrite, ortho-phosphate, COD-low level, specific conductance, suspended solids, settleable solids, total Kjeldahl nitrogen, total inorganic phosphate, total phosphorus, potassium, and fecal coliforms.	70-80.00	Test		

Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES – Continued

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ida. (Cont.)	Individual Water Chemistry Tests	3.50-5.00	Test		
	Elemental analyses performed by Atomic Absorption Spectrophotometry	4.50-6.00	Test		
	pH, Color	2.00	Test		
	Suspended Particulate	5.00	Test		
	Total or Inorganic Phosphorus	8.00	Test		
	Chlorophyll a	6.50	Test		
	Rad. Health (gross alpha-beta)	9.00	Test		
	Kjeldahl Nitrogens, Phenols, Surfactants, Sulfur dioxide	10.00	Test		
	Arsenic, Mercury, Selenium, Cyanide	12.00	Test		
	Oil and Grease	15.00	Test		
	Fluoride, Vegetation	25.00	Test		
	Pesticide Residue Analysis	75.00	Sample		
	Trihalomethane	50.00	Sample		
	Lead (Tissue, Foods, etc.)	12.00	Spec.		
	Pottery	6.00	Sample		
	Throat Culture	6.00	Spec.		
	Urine Drug Screen	7.50	Spec.		
	Syphilis Serology	6.00	Spec.		
	Rubella Serology	5.00	Spec.		
	Cytogenetic Analysis	125.00	Spec.		
	Salmonella—Food	10.00	Sample		
	Coliform—Food	7.50	Sample		
	Air Pollution (Microscopy)	25.00	Sample		
	EPSDT Testing:				
	F.E.P., Urine Culture	4.00	Test		
	Urine Screen, Hematocrit	1.00	Test		
Ind.	Private Water Bacteriology or Chemistry	2.50	Test	45,195	General Fund – Except for Private Water Bact. Postage & Handling Fees (Up to $2.25) Remain in State Board of Health Revolving Fund.
	Public Water Bacteriology	10.00	Annual		
	Premarital Syphilis Sero.	2.50	Spec.		
Ia.	MPN-Potable Water	3.00	Sample	398,500	Estimate of Receipts is Built into General Operational Budget.
	Membrane Filter – Water	12.00	Sample		
	Nitrate and Iron – Hardness	3.00	Sample		
	BOD Effluent	8.00	Sample		
	Urine Screening, Abused Drugs	7.50	Spec.		
	Trace Metals	10-14.00	Test		
	Other Water Quality Parameters	4-48.00	Test		
	Radiation	10.50-40.50	Test		
	Pesticides	48.00-104.50	Test		
Kans.	Water Microbiology	3.00	Sample	66,570	General Fund.
	Water Chemistry				
	Partial Chemical	15.00	Sample		
	Complete Chemical	35.00	Sample		
Me.	Throat (Strep A Screening)	3.00	Kit	454,282	To Support Activities not State or Federally Funded – Personnel, Supplies, Equipment.
	Enteric Pathogen Screening	6.00	Kit		
	Mycology	10.00	Kit		
	Parasitology	6.00	Kit		
	Pertussis – FA	3.00	Kit		
	Newborn Metabolic Diseases	3.00	Kit		
	Blood Lead	6.00	Kit		
	Blood Serology	4.00	Kit		
	Water Analysis – Bact.	3.00	Test		
	Water Analysis – Chem.:				
	New Water Supply	12.00	Sample		
	Group C (17 Parameters)	20.00	Sample		
	Sewage	20.00	Sample		
	Public Distribution System	25.00	Sample		
	Dump Leachate	30.00	Sample		
	Pesticide Screening (6)	65.00	Sample		
	Drug Identification	10.00	Hour		
	Breath or Blood Alcohol	20.00	Sample		
	Pesticides (EPA Min.)	75.00	Set (6)		
	Racing Chemistry	375.00	Week		
Mass.	Laboratory Certificate	5.00	Certificate	1,430	Turned Over to State Treasurer.

Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES – Continued

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Miss.	Medicare-Medicaid Patients (Medicaid Rates)	–	–	210,400	General Laboratory Budget
	Throat Cultures for Group A Strep.	1.00	Spec.		
	TB Cultures (Mental Hosp.)	3,600	Year		
	Sickle Cells	1.51	Spec.		
	Intestinal Parasites	3.00	Spec.		
Mont.	Potable Water and Food:				
	Water Bacteriology	4.00	Sample	38,360	$38,000 – Drinking Water Chemistry and Microbiology Earmarked Revenue Fund. $360 – Occupational Health Chemistry – Laboratory Budget.
	MPN	10.00	Sample		
	Fecal Coliform	6.00	Sample		
	Six-Dilution Plate Count – Water	7.00	Sample		
	Standard Chemical – Private Drinking Water	15.00	Sample		
	EPA Standard Chemical – Public Drinking Water Supply	70.00	Sample		
	Individual Chemicals – Private Drinking Water	2.00	Sample		
	Bacteriological Analysis – Food	15.80	Sample		
	Pesticides (Qual. and Quant.)	35.00 Min	Sample		
	Annual Fee for Public Drinking Water Supplies	170-1200	Year		
	Drinking Water – Pesticide Analysis	55.00	Sample		
	Occupational Health Chemistry:				
	Metals by AAS – First Component	8.00	Test		
	Each Additional Component	3.00	Test		
	AS, Hg, Se by AAS – First Comp.	10.00	Test		
	Each Additional Component	5.00	Test		
	Organic Solvents by G.C. – One Component per Sample	25.00	Test		
	Free Silica – 5 or Fewer Samples	60.00	Batch		
	Coal Tar Pitch Volatiles – 4 or Fewer Samples	40.00	Batch		
	Air Quality Chemistry Analysis and Field Chemical Preparation:				
	Fluoride	1.20-4.00	Sample		
	Sulfur Dioxide	5.50-6.00	Sample		
	Oxides of Nitrogen	3.60	Sample		
	Sulfur – Coal or Soil	20.00	Sample		
	Non-Potable Water:				
	Acidity	12.00	Test		
	Alkalinity and pH	10.50	Test		
	Aluminum	6.50	Test		
	Ammonia, pH	4.00	Test		
	Arsenic	12.00	Test		
	Beryllium, Fluoride, Molybdenum, Strontium, Sulfate, Tin, Lithium, Barium, Antimony	3.50	Test		
	Bio Algal Assay	7.50	Flask		
	BOD	92.00	Sample		
	Boron, TSS	8.50	Test		
	Cadmium, Calcium, Iron, Nitrate, Nitrite, Potassium, Sodium, Turbidity,	3.00	Test		
	Chloride, Chromium, Copper, Lead, Manganese, Nickel, Silver, Specific Conductance, Zinc	2.00	Test		
	Chromium Hex	44.50	Sample		
	Cyanide	108.00	Test		
	Metals Digestion	9.00	Sample		
	Metals Extraction	12.50	Sample		
	Cobalt, Hardness, Ortho-P	1.50	Test		
	Mercury	5.50	Test		
	Nitrogen Kjeldahl, Vanadium	7.00	Test		
	Oil and Grease	30.50	Sample		
	TOC	37.50	Sample		
	Phenols	51.50	Sample		
	Total-P	5.00	Sample		
	Selenium	10.50	Test		
	Silica	35.00	Test		
	Sulfide	57.00	Test		

Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES — Continued

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Nebr.	Water Bact. Exam (Private) Water Chem. Test (Private) Toxicology (Non-Forensic) Special Mailing Outfits	3.00 2-20.00 1-8.00 1.00	Test Test Test Kit	49,522	Special "Cash" Fund for Laboratory.
Nev.	Lab. Licensure and Cert. Entitlement Renewal Water Chemistry	10.00 1.00 50.00	Each Each Each	7,800	Added to Operating Budget.
N.J.	VDRL Rubella Blood Lead Water	2.00 3.00 6.00 6.00	Spec. Spec. Spec. Sample	319,822	Divisional Revolving Fund.
N.M.	All Services Performed for Federal Agencies, Contractors, Grantees, or State Agencies Outside Health and Social Services Dept. are Charged per Relative Value Unit.	3.35	Relative Value Unit	104,900	Become Part of Laboratory Operating Budget.
N.C.	Microbiological Analyses of Public Water Supplies Sale of Specimen Collection Outfits and Biological Products	* Varies W/Type		272,439	State Appropriation to Laboratory is Reduced by the Amount of Estimated Receipts and in Effect, Becomes Part of Annual Operating Budget.
Ore.	Metabolic Disorders Screening Metabolic Disorders — TSH Only	2.25 1.00	Spec. Spec.	121,109	Fees Assist in Supporting the Program.
S.C.	Serological Test for Syphilis Rh Determination Rubella Serology FTA—ABS Infectious Mononucleosis Toxoplasmosis Drug Analysis (Qual.) Drug Analysis (Quan.) Blood Lead	1.00 2.00 2.00 3.00 3.00 3.00 3.00 10.00 2.50	Spec. Spec. Spec. Spec. Spec. Spec. Spec. Spec. Spec.	93,000	Salaries of Laboratory Personnel and General Operating Costs of Laboratory.
S.D.	Environmental Chemistry Microbiology	2.00 2.50	Test Culture	53,448	$18,218 — Deposited to Federal Fund $35,230 — Deposited to Revolving Fund
Va.	—	—	—	43,500	Become Part of the Division's Funds.
Wash.	Metabolic Water Bacteriology Premarital Water Chemistry	3.20 6.00 5.00 2.85	Test Test Test Test	125,000	Support Laboratory Operations.
Wisc.	Handling Charge	3.00	Spec.	1,306,326	Salaries, Supplies, Capital Equipment.
V.I.	—	—	—	212,000	Placed into the Revolving Funds.

* Sliding Scale $15-64/yr. depending on gross sales or number of connections.

SECTION IV
WORKLOAD REPORTING CATEGORIES

DIAGNOSTIC WORKLOAD SECTION

THE FOLLOWING DEFINITIONS APPLY TO CATEGORIES I THROUGH XII:

Workload is reported by the number of specimens in each category or sub-category. Types of procedures *routinely** used in your laboratory are to be indicated by checking the appropriate box. The Association (ASTPHLD) is interested in the type of procedures routinely followed in your laboratory. Therefore, do not check those procedures that you have the capability of performing but do not do so on a routine basis.

*Definition of *Routine* – Those tests performed as part of your standard operating procedures on a specimen or sample.

Specimen/Sample

Any material received in the lab for testing in a workload category or sub-category or a material which is divided into aliquots for testing in multiple categories or sub-categories is counted as *one specimen for each category or sub-category*. Specimens collected from the same site on the same patient (or same environmental source) at the same time, are to be counted as *one specimen* in each category or sub-category in which it is tested.

Table 4-1
I. DIAGNOSTIC BACTERIOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Diagnostic Bacteriology Specimens	A Nasopharyngeal Specimens	B Mycobacterial Specimens	C Enteric Specimens	D Gonococcus Specimens	E Anaerobic Specimens	F Other Bacteriology Specimens
Total	**7,524,578**	**1,976,917**	**579,884**	**216,098**	**4,563,561**	**20,794**	**167,324**
Average	144,703	38,763	12,338	4,237	89,482	462	3,803
New England	**651,503**	**376,237**	**25,323**	**27,712**	**218,512**	**330**	**3,389**
Conn.	161,725	121,588	6,700	8,953	23,132	78	1,274
Mass.	167,590	95,392	—	10,025	60,330	83	1,760
Me.	44,062	4,303	4,318	737	34,568	109	27
N.H.	96,355	55,383	11,417	2,843	26,712	—	—
R.I.	136,979	75,058	1,256	3,389	56,928	20	328
Vt.	44,792	24,513	1,632	1,765	16,842	40	—
Middle Atlantic	**251,638**	**51**	**30,903**	**23,543**	**196,292**	**151**	**698**
N.J.	225,036	—	18,565	10,076	196,276	119	—
N.Y.	—	—	—	—	—	—	—
Pa.	26,602	51	12,338	13,467	16	32	698
East North Central	**972,233**	**461,163**	**42,233**	**31,132**	**394,804**	**11,344**	**31,557**
Ill.	196,282	42,833	7,351	7,715	136,389	277	1,717
Ind.	13,409	15	4,254	2,587	5,223	145	1,185
Mich.	384,410	156,058	17,161	13,201	167,443	9,718	20,829
Ohio	284,352	204,207	7,518	1,402	67,611	291	3,323
Wisc.	93,780	58,050	5,949	6,227	18,138	913	4,503
West North Central	**554,329**	**186,525**	**34,128**	**19,586**	**285,305**	**1,364**	**27,421**
Ia.	126,975	48,414	3,897	1,526	69,365	296	3,477
Kans.	78,089	24,106	6,409	4,305	40,550	477	2,242
Minn.	140,132	1,900	14,839	6,171	116,713	279	230
Mo.	97,213	66,135	—	3,940	26,045	96	997
Nebr.	26,454	3,911	1,085	265	21,193	—	—
N.D.	50,914	19,858	3,865	2,319	5,840	216	18,816
S.D.	34,552	22,201	4,033	1,060	5,599	—	1,659
South Atlantic	**1,925,506**	**189,593**	**157,756**	**49,955**	**1,497,963**	**3,258**	**26,981**
Del.	31,619	660	—	707	29,361	—	891
D.C.	93,741	8,084	2,940	1,893	77,600	11	3,213
Fla.	619,615	35,942	52,447	22,156	498,478	930	9,662
Ga.	273,525	16,728	29,797	6,351	217,335	1,168	2,146
Md.	406,751	43,845	19,075	7,396	336,322	113	—
N.C.	22,115	841	14,713	4,003	862	415	1,281
S.C.	242,167	5,529	12,357	1,051	215,519	302	7,409
Va.	141,999	41,430	16,867	6,000	75,618	308	1,776
W. Va.	93,974	36,534	9,560	398	46,868	11	603
East South Central	**1,076,779**	**239,984**	**104,190**	**16,020**	**708,662**	**1,561**	**6,362**
Ala.	431,297	56,675	41,366	4,889	324,551	396	3,420
Ky.	32,654	3,382	14,903	1,199	12,554	74	542
Miss.	238,805	36,683	24,807	5,598	169,317	—	2,400
Tenn.	374,023	143,244	23,114	4,334	202,240	1,091	—
West South Central	**1,002,691**	**35,038**	**124,734**	**19,207**	**797,480**	**1,343**	**24,889**
Ark.	—	—	—	—	—	—	—
La.	186,216	6,589	62,581	7,824	105,069	420	3,733
Okla.	127,195	22,013	9,446	1,852	92,533	148	1,203
Tex.	689,280	6,436	52,707	9,531	599,878	775	19,953
Mountain	**674,289**	**395,601**	**26,260**	**12,257**	**230,870**	**828**	**8,473**
Ariz.	20,992	682	8,263	2,097	8,761	347	842
Colo.	172,722	140,047	1,978	2,061	28,588	48	—
Ida.	37,489	3,426	1,668	1,179	30,466	209	541
Mont.	17,903	754	3,406	169	13,132	110	332
Nev.	55,276	302	1,631	310	52,362	25	646
N.M.	101,517	9,928	7,479	3,013	75,145	64	5,888
Utah	61,544	37,178	1,520	3,289	19,456	25	76
Wyo.	206,846	203,284	315	139	2,960	—	148
Pacific	**367,458**	**79,088**	**32,369**	**16,256**	**212,428**	**609**	**26,708**
Alaska	100,314	20,756	10,340	2,206	54,597	206	12,209
Cal.	25,276	1,313	1,833	645	12,895	118	8,472
Hawaii	191,170	45,352	9,165	8,763	122,979	146	4,765
Ore.	18,148	9,035	3,572	2,264	2,502	68	707
Wash.	32,550	2,632	7,459	2,378	19,455	71	555
Territories	**48,152**	**13,637**	**1,988**	**430**	**21,245**	**6**	**10,846**
Guam	3,704	10	1,988	183	1,519	4	—
P.R.	31,983	4,063	—	247	19,726	2	7,945
V.I.	12,465	9,564	—	—	—	—	2,901

Table 4-2
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	1. Streptococcus Beta Hemolytic, Group A					
	Number of Specimens	Procedures Used				
		Culture	FA	Sero-grouping	Bacitracin Disc	Other
Total	**1,862,963**					
Average	38,812					
New England	**369,919**					
Conn.	121,529	X	X	X	X	—
Mass.	95,250	X	X	—	—	—
Me.	3,848	X	X	X	—	Coagulase staphylococci
N.H.	49,811	X	X	—	—	—
R.I.	74,998	X	X	—	—	—
Vt.	24,483	X	—	X	—	—
Middle Atlantic	**39**					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	39	X	—	X	—	—
East North Central	**418,781**					
Ill.	40,984	X	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	155,530	X	—	X	X	—
Ohio	200,187	X	X	X	—	—
Wisc.	22,080	X	X	—	—	—
West North Central	**178,207**					
Ia.	48,398	X	X	—	—	—
Kans.	23,850	X	X	—	—	—
Minn.	—	—	—	—	—	—
Mo.	65,726	X	X	X	—	—
Nebr.	3,891	X	X	X	X	—
N.D.	19,846	X	X	X	—	—
S.D.	16,496	X	X	—	—	—
South Atlantic	**153,085**					
Del.	660	X	X	—	X	—
D.C.	6,710	X	—	X	X	—
Fla.	17,971	X	—	—	X	—
Ga.	16,216	X	X	X	—	—
Md.	34,329	X	—	X	X	—
N.C.	841	X	X	X	—	—
S.C.	5,523	X	X	X	—	—
Va.	34,313	X	X	X	—	Biochemicals
W. Va.	36,522	—	X	—	—	—
East South Central	**238,253**					
Ala.	56,597	X	X	—	—	—
Ky.	3,332	X	X	X	—	—
Miss.	36,624	X	X	—	—	—
Tenn.	141,700	—	X	—	—	—
West South Central	**34,649**					
Ark.	—	—	—	—	—	—
La.	6,508	X	X	X	—	—
Okla.	21,773	X	X	X	—	—
Tex.	6,368	X	X	—	—	—
Mountain	**395,081**					
Ariz.	566	X	X	X	—	Biochemicals, serotyping
Colo.	140,019	X	X	—	—	—
Ida.	3,348	X	X	X	X	Biochemicals
Mont.	709	X	—	X	—	—
Nev.	302	X	—	—	—	—
N.M.	9,828	X	X	X	X	—
Utah	37,025	X	X	X	—	—
Wyo.	203,284	X	X	X	—	—
Pacific	**72,873**					
Alaska	19,574	X	X	X	X	Serotyping
Cal.	—	—	—	—	—	—
Hawaii	45,274	X	X	—	—	—
Ore.	6,487	X	X	—	—	—
Wash.	1,538	X	X	—	—	—
Territories	**2,076**					
Guam	10	X	—	—	X	—
P.R.	1,561	—	X	—	—	—
V.I.	505	X	X	—	X	—

DIAGNOSTIC WORKLOAD SECTION

THE FOLLOWING DEFINITIONS APPLY TO CATEGORIES I THROUGH XII:

Workload is reported by the number of specimens in each category or sub-category. Types of procedures *routinely** used in your laboratory are to be indicated by checking the appropriate box. The Association (ASTPHLD) is interested in the type of procedures routinely followed in your laboratory. Therefore, do not check those procedures that you have the capability of performing but do not do so on a routine basis.

*Definition of *Routine* – Those tests performed as part of your standard operating procedures on a specimen or sample.

Specimen/Sample

Any material received in the lab for testing in a workload category or sub-category or a material which is divided into aliquots for testing in multiple categories or sub-categories is counted as *one specimen for each category or sub-category*. Specimens collected from the same site on the same patient (or same environmental source) at the same time, are to be counted as *one specimen* in each category or sub-category in which it is tested.

Table 4-1
I. DIAGNOSTIC BACTERIOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Diagnostic Bacteriology Specimens	A	B	C	D	E	F
		Nasopharyngeal Specimens	Mycobacterial Specimens	Enteric Specimens	Gonococcus Specimens	Anaerobic Specimens	Other Bacteriology Specimens
Total	**7,524,578**	**1,976,917**	**579,884**	**216,098**	**4,563,561**	**20,794**	**167,324**
Average	144,703	38,763	12,338	4,237	89,482	462	3,803
New England	**651,503**	**376,237**	**25,323**	**27,712**	**218,512**	**330**	**3,389**
Conn.	161,725	121,588	6,700	8,953	23,132	78	1,274
Mass.	167,590	95,392	—	10,025	60,330	83	1,760
Me.	44,062	4,303	4,318	737	34,568	109	27
N.H.	96,355	55,383	11,417	2,843	26,712	—	—
R.I.	136,979	75,058	1,256	3,389	56,928	20	328
Vt.	44,792	24,513	1,632	1,765	16,842	40	—
Middle Atlantic	**251,638**	**51**	**30,903**	**23,543**	**196,292**	**151**	**698**
N.J.	225,036	—	18,565	10,076	196,276	119	—
N.Y.	—	—	—	—	—	—	—
Pa.	26,602	51	12,338	13,467	16	32	698
East North Central	**972,233**	**461,163**	**42,233**	**31,132**	**394,804**	**11,344**	**31,557**
Ill.	196,282	42,833	7,351	7,715	136,389	277	1,717
Ind.	13,409	15	4,254	2,587	5,223	145	1,185
Mich.	384,410	156,058	17,161	13,201	167,443	9,718	20,829
Ohio	284,352	204,207	7,518	1,402	67,611	291	3,323
Wisc.	93,780	58,050	5,949	6,227	18,138	913	4,503
West North Central	**554,329**	**186,525**	**34,128**	**19,586**	**285,305**	**1,364**	**27,421**
Ia.	126,975	48,414	3,897	1,526	69,365	296	3,477
Kans.	78,089	24,106	6,409	4,305	40,550	477	2,242
Minn.	140,132	1,900	14,839	6,171	116,713	279	230
Mo.	97,213	66,135	—	3,940	26,045	96	997
Nebr.	26,454	3,911	1,085	265	21,193	—	—
N.D.	50,914	19,858	3,865	2,319	5,840	216	18,816
S.D.	34,552	22,201	4,033	1,060	5,599	—	1,659
South Atlantic	**1,925,506**	**189,593**	**157,756**	**49,955**	**1,497,963**	**3,258**	**26,981**
Del.	31,619	660	—	707	29,361	—	891
D.C.	93,741	8,084	2,940	1,893	77,600	11	3,213
Fla.	619,615	35,942	52,447	22,156	498,478	930	9,662
Ga.	273,525	16,728	29,797	6,351	217,335	1,168	2,146
Md.	406,751	43,845	19,075	7,396	336,322	113	—
N.C.	22,115	841	14,713	4,003	862	415	1,281
S.C.	242,167	5,529	12,357	1,051	215,519	302	7,409
Va.	141,999	41,430	16,867	6,000	75,618	308	1,776
W. Va.	93,974	36,534	9,560	398	46,868	11	603
East South Central	**1,076,779**	**239,984**	**104,190**	**16,020**	**708,662**	**1,561**	**6,362**
Ala.	431,297	56,675	41,366	4,889	324,551	396	3,420
Ky.	32,654	3,382	14,903	1,199	12,554	74	542
Miss.	238,805	36,683	24,807	5,598	169,317	—	2,400
Tenn.	374,023	143,244	23,114	4,334	202,240	1,091	—
West South Central	**1,002,691**	**35,038**	**124,734**	**19,207**	**797,480**	**1,343**	**24,889**
Ark.	—	—	—	—	—	—	—
La.	186,216	6,589	62,581	7,824	105,069	420	3,733
Okla.	127,195	22,013	9,446	1,852	92,533	148	1,203
Tex.	689,280	6,436	52,707	9,531	599,878	775	19,953
Mountain	**674,289**	**395,601**	**26,260**	**12,257**	**230,870**	**828**	**8,473**
Ariz.	20,992	682	8,263	2,097	8,761	347	842
Colo.	172,722	140,047	1,978	2,061	28,588	48	—
Ida.	37,489	3,426	1,668	1,179	30,466	209	541
Mont.	17,903	754	3,406	169	13,132	110	332
Nev.	55,276	302	1,631	310	52,362	25	646
N.M.	101,517	9,928	7,479	3,013	75,145	64	5,888
Utah	61,544	37,178	1,520	3,289	19,456	25	76
Wyo.	206,846	203,284	315	139	2,960	—	148
Pacific	**367,458**	**79,088**	**32,369**	**16,256**	**212,428**	**609**	**26,708**
Alaska	100,314	20,756	10,340	2,206	54,597	206	12,209
Cal.	25,276	1,313	1,833	645	12,895	118	8,472
Hawaii	191,170	45,352	9,165	8,763	122,979	146	4,765
Ore.	18,148	9,035	3,572	2,264	2,502	68	707
Wash.	32,550	2,632	7,459	2,378	19,455	71	555
Territories	**48,152**	**13,637**	**1,988**	**430**	**21,245**	**6**	**10,846**
Guam	3,704	10	1,988	183	1,519	4	—
P.R.	31,983	4,063	—	247	19,726	2	7,945
V.I.	12,465	9,564	—	—	—	—	2,901

Table 4-2
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	1. Streptococcus Beta Hemolytic, Group A					
	Number of Specimens	Procedures Used				
		Culture	FA	Sero-grouping	Bacitracin Disc	Other
Total	**1,862,963**					
Average	38,812					
New England	**369,919**					
Conn.	121,529	X	X	X	X	—
Mass.	95,250	X	X	—	—	—
Me.	3,848	X	X	X	—	Coagulase staphylococci
N.H.	49,811	X	X	—	—	—
R.I.	74,998	X	X	—	—	—
Vt.	24,483	X	—	X	—	—
Middle Atlantic	**39**					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	39	X	—	X	—	—
East North Central	**418,781**					
Ill.	40,984	X	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	155,530	X	—	X	X	—
Ohio	200,187	X	X	X	—	—
Wisc.	22,080	X	X	—	—	—
West North Central	**178,207**					
Ia.	48,398	X	X	—	—	—
Kans.	23,850	X	X	—	—	—
Minn.	—	—	—	—	—	—
Mo.	65,726	X	X	X	—	—
Nebr.	3,891	X	X	X	X	—
N.D.	19,846	X	X	X	—	—
S.D.	16,496	X	X	—	—	—
South Atlantic	**153,085**					
Del.	660	X	X	—	X	—
D.C.	6,710	X	—	X	X	—
Fla.	17,971	X	—	—	X	—
Ga.	16,216	X	X	X	—	—
Md.	34,329	X	—	X	X	—
N.C.	841	X	X	X	—	—
S.C.	5,523	X	X	X	—	—
Va.	34,313	X	X	X	—	Biochemicals
W. Va.	36,522	—	X	—	—	—
East South Central	**238,253**					
Ala.	56,597	X	X	—	—	—
Ky.	3,332	X	X	X	—	—
Miss.	36,624	X	X	—	—	—
Tenn.	141,700	—	X	—	—	—
West South Central	**34,649**					
Ark.	—	—	—	—	—	—
La.	6,508	X	X	X	—	—
Okla.	21,773	X	X	X	—	—
Tex.	6,368	X	X	—	—	—
Mountain	**395,081**					
Ariz.	566	X	X	X	—	Biochemicals, serotyping
Colo.	140,019	X	X	—	—	—
Ida.	3,348	X	X	X	X	Biochemicals
Mont.	709	X	—	X	—	—
Nev.	302	X	—	—	—	—
N.M.	9,828	X	X	X	X	—
Utah	37,025	X	X	X	—	—
Wyo.	203,284	X	X	X	—	—
Pacific	**72,873**					
Alaska	19,574	X	X	X	X	Serotyping
Cal.	—	—	—	—	—	—
Hawaii	45,274	X	X	—	—	—
Ore.	6,487	X	X	—	—	—
Wash.	1,538	X	X	—	—	—
Territories	**2,076**					
Guam	10	X	—	—	X	—
P.R.	1,561	—	X	—	—	—
V.I.	505	X	X	—	X	—

Table 4-3
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	Number of Specimens	2. Diphtheria				
		Procedures Used				
		Direct Smear	Culture	Confirm. Sugars	Toxo-genicity	Other
Total	**26,052**					
Average	668					
New England	**<37**					
Conn.	16	X	X	X	X	—
Mass.	4	X	X	X	X	FA
Me.	2	—	X	—	X	—
N.H.	—	—	—	—	—	—
R.I.	5	X	X	X	X	—
Vt.	<10	X	X	X	X	—
Middle Atlantic	**—**					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	**651**					
Ill.	218	—	X	X	X	—
Ind.	2	X	X	X	X	—
Mich.	177	—	X	X	X	—
Ohio	252	—	X	X	X	—
Wisc.	2	X	X	X	X	—
West North Central	**5,819**					
Ia.	4	X	X	—	X	—
Kans.	34	X	X	X	X	—
Minn.	45	—	X	—	X	Smear of 18 hr. culture
Mo.	12	X	X	X	X	—
Nebr.	15	X	X	X	X	—
N.D.	8	—	X	—	—	—
S.D.	5,701	X	X	X	X	—
South Atlantic	**17,999**					
Del.	—	—	—	—	—	—
D.C.	4	X	X	—	X	—
Fla.	17,971	—	X	X	X	—
Ga.	2	X	X	X	—	—
Md.	—	—	—	—	—	—
N.C.	*	X	X	X	—	—
S.C.	3	X	X	X	—	Tinsdale plates
Va.	19	X	X	—	X	—
W. Va.	—	—	—	—	—	—
East South Central	**52**					
Ala.	24	X	X	—	X	—
Ky.	17	X	X	X	X	—
Miss.	—	—	—	—	—	—
Tenn.	11	X	X	X	X	—
West South Central	**113**					
Ark.	—	—	—	—	—	—
La.	43	—	X	—	—	—
Okla.	2	X	X	X	X	—
Tex.	68	—	X	—	X	—
Mountain	**252**					
Ariz.	109	X	X	X	X	—
Colo.	20	X	X	X	X	—
Ida.	4	X	X	X	X	FA
Mont.	6	X	X	X	X	—
Nev.	—	—	—	—	—	—
N.M.	100	X	X	X	X	—
Utah	13	X	X	X	X	—
Wyo.	—	—	—	—	—	—
Pacific	**1,129**					
Alaska	209	X	X	X	X	—
Cal.	2	X	X	X	X	—
Hawaii	11	X	X	X	X	—
Ore.	10	X	X	X	X	—
Wash.	897	X	X	X	X	—
Territories	**—**					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	X	—	—	—

*Included with Other Bacteriology Specimens, Table 4-10.

Table 4-4
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	3. Pertussis					
	Number of Specimens	Culture	FA	Serological	Biochemicals	Other
Total	**17,042**					
Average	448					
New England	**181**					
Conn.	43	X	X	X	X	–
Mass.	97	X	X	X	–	–
Me.	16	–	X	–	–	–
N.H.	–	–	–	–	–	–
R.I.	5	X	X	–	X	–
Vt.	20	X	X	–	X	–
Middle Atlantic	**12**					
N.J.	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	12	X	X	–	X	–
East North Central	**2,133**					
Ill.	1,631	X	X	–	X	–
Ind.	13	–	X	–	–	–
Mich.	239	X	X	–	X	–
Ohio	12	X	X	–	X	–
Wisc.	238	X	X	–	X	–
West North Central	**389**					
Ia.	12	X	X	–	–	–
Kans.	5	X	X	X	X	–
Minn.	14	X	–	X	X	–
Mo.	345	X	X	–	–	–
Nebr.	5	X	X	–	–	–
N.D.	4	X	X	–	–	–
S.D.	4	X	X	–	–	–
South Atlantic	**663**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	–	–	–	–	–	–
Ga.	510	X	X	X	X	–
Md.	115	X	X	–	–	–
N.C.	*	X	X	–	X	–
S.C.	3	X	X	–	X	–
Va.	28	X	X	–	–	–
W. Va.	7	–	X	–	–	–
East South Central	**1,642**					
Ala.	17	X	X	–	–	–
Ky.	33	–	X	–	–	–
Miss.	59	–	X	–	–	–
Tenn.	1,533	X	X	–	X	Agglutinations
West South Central	**166**					
Ark.	–	–	–	–	–	–
La.	38	X	X	–	–	–
Okla.	128	X	X	–	–	–
Tex.	–	–	–	–	–	–
Mountain	**143**					
Ariz.	7	X	–	–	–	–
Colo.	8	X	X	–	X	–
Ida.	74	X	X	X	X	–
Mont.	39	X	X	–	–	–
Nev.	–	–	–	–	–	–
N.M.	*	X	X	–	X	–
Utah	15	X	–	–	X	–
Wyo.	–	–	–	–	–	–
Pacific	**2,654**					
Alaska	68	X	X	–	X	–
Cal.	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–
Ore.	2,389	X	X	–	–	–
Wash.	197	X	X	–	–	–
Territories	**9,059**					
Guam	–	–	–	–	–	–
P.R.	–	–	–	–	–	–
V.I.	9,059	–	–	X	–	–

*Included with Other Bacteriology Specimens, Table 4-10.

Table 4-5
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

4. Other Nasopharyngeal Specimens

Lab	Number of Specimens	Disease – Procedures Used
Total	**70,860**	
Average	3,081	
Ala.	37	Coagulase Staphylococcus – culture and plasma
Alaska	905	*N. meningitidis* – culture, biochemicals; *H. influenzae* – culture, serotyping; Staphylococcus – culture.
Calif.	1,311	Infant botulism – culture, biochemicals, animal inoculation; Legionnaires' disease – culture, biochemicals, FA, animal inoculation.
D.C.	1,370	ENT – standard, lesions – standard, others – standard
Hawaii	67	Meningococcus – culture, Staphylococcus infection – culture, coagulase, Darkfield – microscopic.
Ida.	*	Mycoplasmal, rickettsial and chlamydial diseases – serology only; miscellaneous bacterial diseases – most standard procedures except base-pairing.
Kans.	217	Nasopharyngitis – smear, culture, biochemicals, serogrouping, serotyping
Me.	437	*Haemophilus influenzae* – typing and factors, *Neisseria meningitidis* – culture and typing, Gram negative (non-fermentors) – biochemical, identification, miscellaneous streptococci – biochemical identification
Md.	9,401	Bacteremia – culture, septic sore throat – culture
Mass.	41	Meningitis – culture, biochemical, serogrouping; staphylococcal infection – culture, coagulase test; Group B streptococcal infection – culture, serogrouping.
Mich.	112	*Vincent's* – slide examination.
Minn.	1,841	Referred cultures for identification (variety of human sources) – smear, biochemicals, serological, animal patho/toxin
Mo.	52	Leptospirosis – culture and Darkfield, *B. lact. (H. influenzae)* – iodometric.
N.H.	5,572	Miscellaneous specimens for bacterial identification – variable.
Ohio	3,756	Staphylococcus – culture, phage type, *N. meningitidis* – culture identification and typing, *H. influenzae* – culture, identification
Okla.	110	*Vincent's angina* – microscopic examination, staphylococcal disease – culture and biochemicals
Ore.	149	URI – culture
P.R.	2,502	–
R.I.	50	*Vincent's angina* – smear; *N. meningitidis* – culture, biochemical; pneumococcus – culture, biochemical
Utah	125	Referred isolates for identification – culture, biochemicals, and Gram stain.
Va.	7,070	Meningitidis (meningococcus) – serogrouping and biochemical, pneumococcus – typing, *H. influenzae* – serotyping, Staphylococcus – phage typing – coagulase
V.I.	–	*S. pneumoniae* – culture
W. Va.	5	Leptospirosis – culture, Legionnaires' disease – culture.
Wisc.	35,730	–

Table 4-6
I. DIAGNOSTIC BACTERIOLOGY
B. Mycobacterial Specimens

Lab & Region	Number of Specimens	Procedures Used							
		Direct Smear	Concentrate Smear	Culture	Direct Suscept. # of Drugs	Indirect Suscept. # of Drugs	# of Biochemicals	Species Ident.	Other
Total	**579,884**								
Average	12,338								
New England	**25,323**								
Conn.	6,700	–	X	X	–	9	14	X	–
Mass.	–	–	–	–	–	–	–	–	–
Me.	4,318	–	X	X	6	6	6	X	–
N.H.	11,417	X	X	X	–	–	–	–	–
R.I.	1,256	–	X	X	–	7	12	X	–
Vt.	1,632	–	X	X	6	6	6	X	–
Middle Atlantic	**30,903**								
N.J.	18,565	–	X	X	9	9	12	X	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	12,338	X	X	X	6	5	12	X	Rate of growth studies, temperature studies (37°, 25°, 45°)
East North Central	**42,233**								
Ill.	7,351	–	X	X	–	5	9	X	–
Ind.	4,254	–	X	X	3	3	9	X	–
Mich.	17,161	–	X	X	–	9	12	X	–
Ohio	7,518	–	X	X	8	8	8	X	–
Wisc.	5,949	X	X	X	8	8	12	X	–
West North Central	**34,128**								
Ia.	3,897	X	X	X	5	5	14	X	–
Kans.	6,409	–	X	X	6	6	16	X	–
Minn.	14,839	–	X	X	–	3	15	–	Drug sensitivities
Mo.	–	–	–	–	–	–	–	–	–
Nebr.	1,085	–	X	X	X	X	X	X	–
N.D.	3,865	–	X	X	4	4	13	X	–
S.D.	4,033	–	X	X	4	4	4	–	–
South Atlantic	**157,756**								
Del.	–	–	–	–	–	–	–	–	–
D.C.	2,940	–	X	X	–	7	10	X	–
Fla.	52,447	–	X	X	–	7	12	X	–
Ga.	29,797	–	X	X	6	6	17	X	–
Md.	19,075	X	X	X	9	9	–	X	–
N.C.	14,713	–	X	X	4	4	8	X	–
S.C.	12,357	X	X	X	6	6	10	X	–
Va.	16,867	X	X	X	–	4	10	–	–
W. Va.	9,560	–	X	X	5	5	9	X	–
East South Central	**104,190**								
Ala.	41,366	–	X	X	9	9	14	X	Serological typing of "Atypical" Mycobacteria, animal inoculation of spinal fluids
Ky.	14,903	–	X	X	9	9	9	X	Fluorochrome smear
Miss.	24,807	–	X	X	–	7	6	X	–
Tenn.	23,114	X	X	X	–	6	10	X	–
West South Central	**124,734**								
Ark.	–	–	–	–	–	–	–	–	–
La.	62,581	–	X	X	5	5	10	X	–
Okla.	9,446	–	X	X	–	5	12	X	–
Tex.	52,707	–	X	X	7	7	10	X	–
Mountain	**26,260**								
Ariz.	8,263	X	X	X	7	7	10	X	–
Colo.	1,978	–	X	X	–	–	3	X	–
Ida.	1,668	X	X	X	5	5	13	X	–
Mont.	3,406	X	X	X	5	5	–	X	–
Nev.	1,631	X	X	X	–	11	5	X	–
N.M.	7,479	–	X	X	4	4	6	X	–
Utah	1,520	X	X	X	4	9	15	X	–
Wyo.	315	–	X	X	–	–	–	–	–
Pacific	**32,369**								
Alaska	10,340	X	X	X	4	4	5	X	–
Cal.	1,833	–	X	X	5	5-9	10	X	–
Hawaii	9,165	X	X	X	5	5	5	X	–
Ore.	3,572	X	X	X	–	–	13	X	–
Wash.	7,459	–	X	X	5	5	10	X	–
Territories	**1,988**								
Guam	1,988	X	–	X	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–
V.I.	–	X	X	X	–	–	1	–	–

Table 4-3
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	Number of Specimens	2. Diphtheria				
		Procedures Used				
		Direct Smear	Culture	Confirm. Sugars	Toxo-genicity	Other
Total	**26,052**					
Average	668					
New England	**<37**					
Conn.	16	X	X	X	X	—
Mass.	4	X	X	X	X	FA
Me.	2	—	X	—	X	—
N.H.	—	—	—	—	—	—
R.I.	5	X	X	X	X	—
Vt.	<10	X	X	X	X	—
Middle Atlantic	**—**					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	**651**					
Ill.	218	—	X	X	X	—
Ind.	2	X	X	X	X	—
Mich.	177	—	X	X	X	—
Ohio	252	—	X	X	X	—
Wisc.	2	X	X	X	X	—
West North Central	**5,819**					
Ia.	4	X	X	—	X	—
Kans.	34	X	X	X	X	—
Minn.	45	—	X	—	X	Smear of 18 hr. culture
Mo.	12	X	X	X	X	—
Nebr.	15	X	X	X	X	—
N.D.	8	—	X	—	—	—
S.D.	5,701	X	X	X	X	—
South Atlantic	**17,999**					
Del.	—	—	—	—	—	—
D.C.	4	X	X	—	X	—
Fla.	17,971	—	X	X	X	—
Ga.	2	X	X	X	—	—
Md.	—	—	—	—	—	—
N.C.	*	X	X	X	—	—
S.C.	3	X	X	X	—	Tinsdale plates
Va.	19	X	X	—	X	—
W. Va.	—	—	—	—	—	—
East South Central	**52**					
Ala.	24	X	X	—	X	—
Ky.	17	X	X	X	X	—
Miss.	—	—	—	—	—	—
Tenn.	11	X	X	X	X	—
West South Central	**113**					
Ark.	—	—	—	—	—	—
La.	43	—	X	—	—	—
Okla.	2	X	X	X	X	—
Tex.	68	—	X	—	X	—
Mountain	**252**					
Ariz.	109	X	X	X	X	—
Colo.	20	X	X	X	X	—
Ida.	4	X	X	X	X	FA
Mont.	6	X	X	X	X	—
Nev.	—	—	—	—	—	—
N.M.	100	X	X	X	X	—
Utah	13	X	X	X	X	—
Wyo.	—	—	—	—	—	—
Pacific	**1,129**					
Alaska	209	X	X	X	X	—
Cal.	2	X	X	X	X	—
Hawaii	11	X	X	X	X	—
Ore.	10	X	X	X	X	—
Wash.	897	X	X	X	X	—
Territories	**—**					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	X	—	—	—

*Included with Other Bacteriology Specimens, Table 4-10.

Table 4-4
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	3. Pertussis					
	Number of Specimens	Culture	FA	Serological	Biochemicals	Other
Total	**17,042**					
Average	448					
New England	**181**					
Conn.	43	X	X	X	X	–
Mass.	97	X	X	X	–	–
Me.	16	–	X	–	–	–
N.H.	–	–	–	–	–	–
R.I.	5	X	X	–	X	–
Vt.	20	X	X	–	X	–
Middle Atlantic	**12**					
N.J.	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	12	X	X	–	X	–
East North Central	**2,133**					
Ill.	1,631	X	X	–	X	–
Ind.	13	–	X	–	–	–
Mich.	239	X	X	–	X	–
Ohio	12	X	X	–	X	–
Wisc.	238	X	X	–	X	–
West North Central	**389**					
Ia.	12	X	X	–	–	–
Kans.	5	X	X	X	X	–
Minn.	14	X	–	X	X	–
Mo.	345	X	X	–	–	–
Nebr.	5	X	X	–	–	–
N.D.	4	X	X	–	–	–
S.D.	4	X	X	–	–	–
South Atlantic	**663**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	–	–	–	–	–	–
Ga.	510	X	X	X	X	–
Md.	115	X	X	–	–	–
N.C.	*	X	X	–	X	–
S.C.	3	X	X	–	X	–
Va.	28	X	X	–	–	–
W. Va.	7	–	X	–	–	–
East South Central	**1,642**					
Ala.	17	X	X	–	–	–
Ky.	33	–	X	–	–	–
Miss.	59	–	X	–	–	–
Tenn.	1,533	X	X	–	X	Agglutinations
West South Central	**166**					
Ark.	–	–	–	–	–	–
La.	38	X	X	–	–	–
Okla.	128	X	X	–	–	–
Tex.	–	–	–	–	–	–
Mountain	**143**					
Ariz.	7	X	–	–	–	–
Colo.	8	X	X	–	X	–
Ida.	74	X	X	X	X	–
Mont.	39	X	X	–	–	–
Nev.	–	–	–	–	–	–
N.M.	*	X	X	–	X	–
Utah	15	X	–	–	X	–
Wyo.	–	–	–	–	–	–
Pacific	**2,654**					
Alaska	68	X	X	–	X	–
Cal.	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–
Ore.	2,389	X	X	–	–	–
Wash.	197	X	X	–	–	–
Territories	**9,059**					
Guam	–	–	–	–	–	–
P.R.	–	–	–	–	–	–
V.I.	9,059	–	–	X	–	–

*Included with Other Bacteriology Specimens, Table 4-10.

Table 4-5
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

4. Other Nasopharyngeal Specimens

Lab	Number of Specimens	Disease — Procedures Used
Total	**70,860**	
Average	3,081	
Ala.	37	Coagulase Staphylococcus — culture and plasma
Alaska	905	*N. meningitidis* — culture, biochemicals; *H. influenzae* — culture, serotyping; Staphylococcus — culture.
Calif.	1,311	Infant botulism — culture, biochemicals, animal inoculation; Legionnaires' disease — culture, biochemicals, FA, animal inoculation.
D.C.	1,370	ENT — standard, lesions — standard, others — standard
Hawaii	67	Meningococcus — culture, Staphylococcus infection — culture, coagulase, Darkfield — microscopic.
Ida.	*	Mycoplasmal, rickettsial and chlamydial diseases — serology only; miscellaneous bacterial diseases — most standard procedures except base-pairing.
Kans.	217	Nasopharyngitis — smear, culture, biochemicals, serogrouping, serotyping
Me.	437	*Haemophilus influenzae* — typing and factors, *Neisseria meningitidis* — culture and typing, Gram negative (non-fermentors) — biochemical, identification, miscellaneous streptococci — biochemical identification
Md.	9,401	Bacteremia — culture, septic sore throat — culture
Mass.	41	Meningitis — culture, biochemical, serogrouping; staphylococcal infection — culture, coagulase test; Group B streptococcal infection — culture, serogrouping.
Mich.	112	*Vincent's* — slide examination.
Minn.	1,841	Referred cultures for identification (variety of human sources) — smear, biochemicals, serological, animal patho/toxin
Mo.	52	Leptospirosis — culture and Darkfield, *B. lact. (H. influenzae)* — iodometric.
N.H.	5,572	Miscellaneous specimens for bacterial identification — variable.
Ohio	3,756	Staphylococcus — culture, phage type, *N. meningitidis* — culture identification and typing, *H. influenzae* — culture, identification
Okla.	110	*Vincent's angina* — microscopic examination, staphylococcal disease — culture and biochemicals
Ore.	149	URI — culture
P.R.	2,502	—
R.I.	50	*Vincent's angina* — smear; *N. meningitidis* — culture, biochemical; pneumococcus — culture, biochemical
Utah	125	Referred isolates for identification — culture, biochemicals, and Gram stain.
Va.	7,070	Meningitidis (meningococcus) — serogrouping and biochemical, pneumococcus — typing, *H. influenzae* — serotyping, Staphylococcus — phage typing — coagulase
V.I.	—	*S. pneumoniae* — culture
W. Va.	5	Leptospirosis — culture, Legionnaires' disease — culture.
Wisc.	35,730	—

Table 4-6
I. DIAGNOSTIC BACTERIOLOGY
B. Mycobacterial Specimens

Lab & Region	Number of Specimens	Procedures Used							
		Direct Smear	Concentrate Smear	Culture	Direct Suscept. # of Drugs	Indirect Suscept. # of Drugs	# of Biochemicals	Species Ident.	Other
Total	**579,884**								
Average	12,338								
New England	**25,323**								
Conn.	6,700	–	X	X	–	9	14	X	–
Mass.	–	–	–	–	–	–	–	–	–
Me.	4,318	–	X	X	6	6	6	X	–
N.H.	11,417	X	X	X	–	–	–	–	–
R.I.	1,256	–	X	X	–	7	12	X	–
Vt.	1,632	–	X	X	6	6	6	X	–
Middle Atlantic	**30,903**								
N.J.	18,565	–	X	X	9	9	12	X	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	12,338	X	X	X	6	5	12	X	Rate of growth studies, temperature studies (37°, 25°, 45°)
East North Central	**42,233**								
Ill.	7,351	–	X	X	–	5	9	X	–
Ind.	4,254	–	X	X	3	3	9	X	–
Mich.	17,161	–	X	X	–	9	12	X	–
Ohio	7,518	–	X	X	8	8	8	X	–
Wisc.	5,949	X	X	X	8	8	12	X	–
West North Central	**34,128**								
Ia.	3,897	X	X	X	5	5	14	X	–
Kans.	6,409	–	X	X	6	6	16	X	–
Minn.	14,839	–	X	X	–	3	15	–	Drug sensitivities
Mo.	–	–	–	–	–	–	–	–	–
Nebr.	1,085	–	X	X	X	X	X	X	–
N.D.	3,865	–	X	X	4	4	13	X	–
S.D.	4,033	–	X	X	4	4	4	–	–
South Atlantic	**157,756**								
Del.	–	–	–	–	–	–	–	–	–
D.C.	2,940	–	X	X	–	7	10	X	–
Fla.	52,447	–	X	X	–	7	12	X	–
Ga.	29,797	–	X	X	6	6	17	X	–
Md.	19,075	X	X	X	9	9	–	X	–
N.C.	14,713	–	X	X	4	4	8	X	–
S.C.	12,357	X	X	X	6	6	10	X	–
Va	16,867	X	X	X	–	4	10	–	–
W. Va.	9,560	–	X	X	5	5	9	X	–
East South Central	**104,190**								
Ala.	41,366	–	X	X	9	9	14	X	Serological typing of "Atypical" Mycobacteria, animal inoculation of spinal fluids
Ky.	14,903	–	X	X	9	9	9	X	Fluorochrome smear
Miss.	24,807	–	X	X	–	7	6	X	–
Tenn.	23,114	X	X	X	–	6	10	X	–
West South Central	**124,734**								
Ark.	–	–	–	–	–	–	–	–	–
La.	62,581	–	X	X	5	5	10	X	–
Okla.	9,446	–	X	X	–	5	12	X	–
Tex.	52,707	–	X	X	7	7	10	X	–
Mountain	**26,260**								
Ariz.	8,263	X	X	X	7	7	10	X	–
Colo.	1,978	–	X	X	–	–	3	X	–
Ida.	1,668	X	X	X	5	5	13	X	–
Mont.	3,406	X	X	X	5	5	–	X	–
Nev.	1,631	X	X	X	–	11	5	X	–
N.M.	7,479	–	X	X	4	4	6	X	–
Utah	1,520	X	X	X	4	9	15	X	–
Wyo.	315	–	X	X	–	–	–	–	–
Pacific	**32,369**								
Alaska	10,340	X	X	X	4	4	5	X	–
Cal.	1,833	–	X	X	5	5-9	10	X	–
Hawaii	9,165	X	X	X	5	5	5	X	–
Ore.	3,572	X	X	X	–	–	13	X	–
Wash.	7,459	–	X	X	5	5	10	X	–
Territories	**1,988**								
Guam	1,988	X	–	X	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–
V.I.	–	X	X	X	–	–	1	–	–

Table 4-7
I. DIAGNOSTIC BACTERIOLOGY
C. Enteric Specimens

Lab & Region	Number of Specimens	Procedures Used							
		Primary Plating	Enrichment Plating	Biochemicals	FA	Serogrouping	Serotyping	Phage Typing, S. Typhi	Other
Total	**216,098**								
Average	4,237								
New England	**27,712**								
Conn.	8,953	X	X	X	X	X	X	–	–
Mass.	10,025	X	X	X	–	X	X	–	–
Me.	737	X	X	X	–	X	–	–	–
N.H.	2,843	X	X	X	X	X	–	–	–
R.I.	3,389	X	X	X	–	X	–	–	–
Vt.	1,765	X	X	X	–	X	X	–	–
Middle Atlantic	**23,543**								
N.J.	10,076	X	X	X	X	X	X	–	Kirby-Bauer susceptibility testing
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	13,467	X	X	X	–	X	X	X	–
East North Central	**31,132**								
Ill.	7,715	X	X	X	–	X	X	X	–
Ind.	2,587	X	X	X	–	X	X	–	–
Mich.	13,201	X	X	X	–	X	X	–	–
Ohio	1,402	X	X	X	–	X	X	–	–
Wisc.	6,227	X	X	X	–	X	–	–	Enrichment (CE) for Yersinia, plating media for Yersinia and Aeromonas, plating from enrichment at 7, 14, and 21 days.
West North Central	**19,586**								
Ia.	1,526	X	X	X	X	X	X	–	–
Kans.	4,305	X	X	X	X	X	X	–	–
Minn.	6,171	X	X	X	–	X	X	X	Microscopic
Mo.	3,940	X	X	X	–	X	X	–	–
Nebr.	265	X	X	X	–	X	–	–	–
N.D.	2,319	X	X	X	–	X	X	–	–
S.D.	1,060	X	X	X	–	X	X	–	–
South Atlantic	**49,955**								
Del.	707	X	X	X	–	X	X	–	–
D.C.	1,893	X	X	X	–	X	X	–	–
Fla.	22,156	X	X	X	–	X	X	–	–
Ga.	6,351	X	X	X	–	X	X	X	–
Md.	7,396	X	X	X	–	X	X	–	Sensitivities
N.C.	4,003	X	X	X	–	X	X	–	–
S.C.	1,051	X	X	X	–	X	X	–	–
Va.	6,000	X	X	X	–	X	X	–	Species identification (e.g., Yersinia and Vibrio)
W. Va.	398	X	X	X	–	X	X	–	–
East South Central	**16,020**								
Ala.	4,889	X	X	X	–	X	X	–	–
Ky.	1,199	X	X	X	–	X	X	X	–
Miss.	5,598	X	X	X	X	X	X	–	Subculture
Tenn.	4,334	X	X	X	–	X	X	–	–
West South Central	**19,207**								
Ark.	–	–	–	–	–	–	–	–	–
La.	7,824	X	X	X	–	X	X	X	–
Okla.	1,852	X	X	X	–	X	X	–	–
Tex.	9,531	X	X	X	–	X	X	X	–
Mountain	**12,257**								
Ariz.	2,097	X	X	X	X	X	X	–	–
Colo.	2,061	X	X	X	–	X	X	–	–
Ida.	1,179	X	X	X	–	X	X	–	–
Mont.	169	X	X	X	–	X	–	–	–
Nev.	310	X	X	X	–	X	–	–	–
N.M.	3,013	X	X	X	–	X	X	–	–
Utah	3,289	X	X	X	–	X	X	–	–
Wyo.	139	X	X	X	–	X	–	–	–
Pacific	**16,256**								
Alaska	2,206	X	X	X	–	X	–	–	–
Cal.	645	X	X	X	X	X	X	X	Sensitivity tests
Hawaii	8,763	X	X	X	–	X	X	X	–
Ore.	2,264	X	X	X	–	X	X	–	–
Wash.	2,378	X	X	X	–	X	X	–	–
Territories	**430**								
Guam	183	X	X	X	–	X	X	–	–
P.R.	247	X	X	X	X	X	–	–	–
V.I.	–	X	X	X	–	X	X	–	–

Table 4-8
I. DIAGNOSTIC BACTERIOLOGY
D. Gonococcus Specimens

Lab & Region	Number of Specimens	Procedures Used						
		Smear	Culture	Oxidase Reaction	FA	Bio-chemical	Beta-Lactamase	Other
Total	**4,563,561**							
Average	89,482							
New England	**218,512**							
Conn.	23,132	X	X	X	X	X	X	Transformation
Mass.	60,330	X	X	X	X	X	X	–
Me.	34,568	X	X	X	X	X	X	–
N.H.	26,712	X	X	X	X	–	–	–
R.I.	56,928	X	X	X	X	X	X	–
Vt.	16,842	X	X	X	X	X	X	–
Middle Atlantic	**196,292**							
N.J.	196,276	X	X	X	–	X	X	–
N.Y.	–	–	–	–	–	–	–	–
Pa.	16	X	–	X	–	X	X	–
East North Central	**394,804**							
Ill.	136,389	X	X	X	–	X	X	–
Ind.	5,223	X	–	–	–	–	–	–
Mich.	167,443	X	X	X	–	X	X	–
Ohio	67,611	X	X	X	X	X	X	–
Wisc.	18,138	X	X	X	–	X	X	–
West North Central	**285,305**							
Ia.	69,365	X	X	X	X	X	–	–
Kans.	40,550	X	X	X	X	X	X	–
Minn.	116,713	X	X	X	X	X	X	–
Mo.	26,045	X	X	X	X	X	X	–
Nebr.	21,193	X	X	X	X	X	X	–
N.D.	5,840	X	X	X	–	X	X	–
S.D.	5,599	X	X	X	X	X	X	–
South Atlantic	**1,497,963**							
Del.	29,361	X	X	X	–	X	X	–
D.C.	77,600	X	X	X	X	X	X	–
Fla.	498,478	X	X	X	–	–	X	–
Ga.	217,335	X	X	X	X	X	X	–
Md.	336,322	X	X	X	X	X	–	–
N.C.	862	X	X	X	X	X	X	–
S.C.	215,519	X	X	X	X	X	X	–
Va.	75,618	X	X	X	X	X	X	–
W. Va.	46,868	X	X	X	X	X	X	–
East South Central	**708,662**							
Ala.	324,551	X	X	X	X	X	X	–
Ky.	12,554	X	X	X	X	X	X	–
Miss.	169,317	X	X	X	–	X	X	Gram stain & culture, drug susceptibility
Tenn.	202,240	X	X	X	X	X	X	–
West South Central	**797,480**							
Ark.	–	–	–	–	–	–	–	–
La.	105,069	X	X	X	–	X	X	–
Okla.	92,533	X	X	X	X	X	X	–
Tex.	599,878	X	X	X	X	X	X	–
Mountain	**230,870**							
Ariz.	8,761	X	X	X	X	X	–	–
Colo.	28,588	X	X	X	–	X	X	–
Ida.	30,466	X	X	X	X	X	X	–
Mont.	13,132	X	X	X	X	X	X	Disc agar diffusion susceptibility test
Nev.	52,362	X	X	X	–	X	X	–
N.M.	75,145	X	X	X	X	X	X	–
Utah	19,456	X	X	X	X	X	X	–
Wyo.	2,960	X	X	X	X	X	–	–
Pacific	**212,428**							
Alaska	54,597	X	X	X	X	X	X	–
Cal.	12,895	X	X	X	X	X	X	–
Hawaii	122,979	X	X	X	X	X	X	–
Ore.	2,502	X	X	X	X	X	X	–
Wash.	19,455	X	X	X	X	X	X	–
Territories	**21,245**							
Guam	1,519	X	X	X	–	X	–	P-disk
P.R.	19,726	X	X	X	X	X	X	–
V.I.	–	X	X	X	X	X	–	–

Table 4-9
I. DIAGNOSTIC BACTERIOLOGY
E. Anaerobic Specimens

Lab & Region	Number of Specimens	Number of Cultures		Techniques Used		Procedures Used						
		Primary	Reference	Prereduced Media	Gas Chromatography	Gram Stain	Plating	Subculture	Biochemical	FA	GLC	Other
Total	**20,794**											
Average	462											
New England	**330**											
Conn.	78	6	72	X	X	X	X	X	X	X	X	—
Mass.	83	11	72	—	X	X	X	X	X	—	X	—
Me.	109	13	96	X	X	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	20	—	20	X	—	X	X	X	X	—	—	—
Vt.	40	5	35	X	X	X	X	X	X	—	X	—
Middle Atlantic	**151**											
N.J.	119	—	119	—	—	X	X	X	X	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	32	14	18	—	X	X	X	X	X	—	X	—
East North Central	**11,344**											
Ill.	277	—	277	X	X	X	X	X	X	—	X	—
Ind.	145	—	145	—	X	X	X	X	X	—	X	—
Mich.	9,718	9,135	583	X	X	X	X	X	X	—	X	—
Ohio	291	—	291	X	X	X	X	X	X	—	X	Sensitivity testing, animal inoculation
Wisc.	913	513	400	X	X	X	X	X	X	—	X	—
West North Central	**1,364**											
Ia.	296	—	296	X	X	X	X	X	X	X	X	—
Kans.	477	1	476	X	X	X	X	X	X	—	X	—
Minn.	279	43	236	—	—	X	X	X	X	—	—	Animal toxogenicity tests, serological tests
Mo.	96	—	96	—	X	X	X	X	X	—	X	—
Nebr.	—	—	—	—	—	—	—	—	—	—	—	—
N.D.	216	141	75	X	—	X	X	X	X	—	—	—
S.D.	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic	**3,258**											
Del.	—	—	—	—	—	—	—	—	—	—	—	—
D.C.	11	11	—	X	—	X	X	X	X	—	—	—
Fla.	930	91	839	X	X	X	X	X	X	—	X	—
Ga.	1,168	15	1,153	—	X	X	X	X	X	—	X	Animal inoc. for toxogenicity
Md.	113	—	113	—	X	X	X	X	X	—	X	—
N.C.	415	406	9	X	X	X	X	X	X	—	X	—
S.C.	302	12	290	X	X	X	X	X	X	X	X	Flagellar stains
Va.	308	—	—	X	—	X	X	X	X	—	—	—
W.Va.	11	3	8	X	X	X	X	X	X	—	X	—
East South Central	**1,561**											
Ala.	396	—	396	X	—	X	X	X	X	—	—	Animal inoculation
Ky.	74	—	74	—	X	X	X	X	X	—	X	—
Miss.	—	—	—	—	—	—	—	—	—	—	—	—
Tenn.	1,091	—	1,091	—	X	X	X	X	X	—	X	Toxin
West South Central	**1,343**											
Ark.	—	—	—	—	—	—	—	—	—	—	—	—
La.	420	—	420	X	—	X	X	X	X	—	—	—
Okla.	148	—	148	X	—	X	X	X	X	—	—	—
Tex.	775	28	615	X	X	X	X	X	X	X	X	—
Mountain	**828**											
Ariz.	347	—	347	X	X	X	X	X	X	X	X	—
Colo.	48	40	8	X	—	X	X	X	X	—	—	—
Ida.	209	123	86	X	X	X	X	X	X	—	—	—
Mont.	110	—	110	X	—	X	X	X	X	—	—	—
Nev.	25	25	—	X	—	X	X	X	X	—	—	—
N.M.	64	—	—	X	X	X	X	X	X	—	X	—
Utah	25	—	25	X	—	X	X	X	X	—	—	—
Wyo.	—	—	—	—	—	—	—	—	—	—	—	—
Pacific	**609**											
Alaska	206	206	—	—	—	X	X	X	X	—	—	—
Cal.	118	—	118	X	X	X	X	X	X	X	X	—
Hawaii	146	16	130	X	X	X	X	X	X	—	X	—
Ore.	68	18	50	X	X	X	X	X	X	X	—	—
Wash.	71	10	61	X	X	X	X	X	X	—	X	Antibiograms, mouse toxicity testing
Territories	**6**											
Guam	4	3	1	X	—	X	X	X	X	—	—	—
R.	2	—	2	X	—	X	X	X	X	—	—	—
V.I.	—	X	—	X	—	X	X	X	X	—	—	—

Table 4-10
I. DIAGNOSTIC BACTERIOLOGY
F. Other Bacteriology Specimens

Lab	Number of Specimens	Disease – Procedures Used
Total	**167,324**	
Average	3,810	
Ala.	3,420	Pathogenic *E. coli* – FA; Staphylococcus – culture; reference bacteriology – culture.
Alaska	12,209	Streptococcus – culture, serogrouping; urinary bacteremia – culture; EENT-skin-wound infections – culture; meningitis – culture, biochemicals
Ariz.	842	Miscellaneous bacteria – culture, isolation, biopsy, identification
Cal.	8,472	Plague – culture, animal inoculation, bacteriophage, FA; relapsing fever – stained smears, animal inoculation; reference cultures for identification.
Conn.	1,274	Reference culture and miscellaneous clinical – same procedures as anaerobic specimens Legionnaires' culture – FG medium.
Del.	891	Urine cultures, miscellaneous (wounds, etc.)
D.C.	3,213	Urinary tract infections – standardized procedures.
Fla.	9,662	Miscellaneous infections (eye, ear, kidney, wound and lesions) – culture and smear Referred cultures for identification – culture and smear Sensitivity testing – drug sensitivity Rheumatic fever prophylaxis (urine) – drug sensitivity Dental caries – culture
Ga.	2,146	Miscellaneous clinical specimens – same procedures as anaerobic specimens Referred cultures for identification – same procedures as anaerobic specimens
Hawaii	4,765	Staph phage typing; antibiotic sensitivity – Kirby Bauer; non-human enteric – culture, ID; Leptospirosis – culture, ID; reference – subculture, appropriate ID procedure.
Ida.	541	Ear, urine, etc.
Ill.	1,717	Food poisoning – culture; Leptospirosis – culture; Staphylococcus – phage typing; miscellaneous – smear, culture, biochemicals
Ind.	1,185	Reference culture (aerobic) – species ident. Reference culture – Staph. phage typing
Ia.	3,477	Miscellaneous wounds, fluids – direct plating; reference cultures – biochemicals, serotyping, serogrouping
Kans.	2,242	Staphylococcal infections – culture, coagulase, phage typing; Vincent's angina – smear; meningitis, bacterial pneumonias including Legionnaires' disease, blood cultures and other miscellaneous infections – smear, culture, biochemicals, serogrouping, serotyping and when requested antibiotic sensitivities.
Ky.	542	Staph bacteriophage – smear, coagulase, phage typing; miscellaneous culture – smear, biochemicals, coagulase, serogrouping
Me.	27	Reference for staphylococci coagulase.
Mass.	1,760	Aerobic and anaerobic infections – microscopic, culture, biochemicals, serological and GLC.
Mich.	20,829	Sepsis, general – culture (transudates/exudates); dental plaque – saliva culture; staphylococcal – phage typing; urinary infections – urine culture; salmonellosis – serotyping.
Minn.	230	Leptospirosis, botulism, Vincent's angina, blood, spinal fluids, tissues, food poisonings (bacterial)
Miss.	2,400	Water for Salmonella – primary plating, enrichment plating, biochemicals, serogrouping, serotyping, subculture Miscellaneous cultures – plating, selective subculture, biochemicals Blood cultures – culture, plating, biochemicals Urine cultures – plating, subculture, biochemicals, bacterial sensitivity testing Spinal fluid – plating, biochemicals, Gram stain, agglutination

Table 4-10
I. DIAGNOSTIC BACTERIOLOGY
F. Other Bacteriology Specimens — Continued

Lab	Number of Specimens	Disease — Procedures Used
Mo.	997	Miscellaneous aerobes (reference cultures) — Gram stain, plating, subculture, biochemicals, serogrouping.
Mont.	332	Special determinative bacteriology — many.
Nev.	646	Pus (abscess) — culture; urine (infection) — culture; other fluids — culture.
N.M.	5,888	Pertussis — direct FA; plague — direct FA; staphylococcal infections — cultures (phage typing if indicated); nosocomial infections (monitoring-preventive) — sterility spore test
N.C.	1,281	Reference specimens (all types) — smear, culture, biochemicals, serotyping Clinical specimens (all types other than fecal and throat swabs for strep.) — smear, culture, biochemicals, serotyping
N.D.	18,816	Blood and urine, susceptibility tests, miscellaneous, reference cultures.
Ohio	3,323	Mycoplasma infections — culture; urea plasma infections — culture; Legionnaires' — culture; miscellaneous — culture; referred cultures, aerobic — cultures, biochemicals, serology
Okla.	1,203	Urinary tract infections — culture; bacteremia — culture and serology; meningitis — culture and serology; wounds — culture and serology; unknown — culture and serology.
Ore.	707	Miscellaneous specimens and cultures for identification.
Pa.	698	Bacterial infections other than mycobacteria and enteric bacteria — GM stain, subculture, biochemicals, serogrouping, serotyping; staphylococcal food poisoning — stool culturing.
P.R.	7,945	—
R.I.	328	Miscellaneous reference cultures — culture, biochemicals.
S.C.	7,409	Diseases caused by miscellaneous Gram-positive and Gram negative organisms — FA, biochemicals, serological tests, special stains, antibiograms.
S.D.	1,659	Septicemia — culture Wounds — biochemical Ears & eyes — susceptibility Sterility packs — culture Reference cultures
Tenn.	3,733	Cultures for identification — biochemicals, serotyping.
Tex.	19,953	Reference cultures — aerobic
Utah	76	Tularemia — culture Plague — Gram stain Brucella — biochemical Meningitis — typing
Va.	1,776	Wounds, lesions, body fluids, dental caries, sputum, referred cultures, autopsy, miscellaneous — blood and CSF, animal inoculation, *H. ducreyii* smears.
V.I.	2,901	Wound, fluid, exudates — aerobic and anaerobic primary plating, subculture, biochemicals; urine — primary plating, colony count, biochemicals; sensitivity — aerobic and anaerobic, Mueller Hinton Method.
Wash.	555	Legionnaires' disease — stains, plating, embryonated eggs and guinea pigs; Meningococcal meningitis — Gram stain, plating, serogrouping, subculture, sensitivity.
W.Va.	603	Miscellaneous — appropriate; food surveillance — appropriate.
Wisc.	4,503	Urinary tract infection — culture, biochemicals; blood cultures — culture, biochemicals; miscellaneous — culture, biochemicals; Brucella — culture, biochemicals; meningitis — CIE, antibiotic fluid levels, MIC determinations; Legionnaires' — culture.
Wyo.	148	Miscellaneous reference cultures — biochemicals, FA, stains.

Table 4-11
II. MYCOLOGY

Lab & Region	Number of Specimens	Procedures Used						
		Micro. Wet Mounts	Micro. Stains	Culture	FA	Bio-chemicals	Animal Inoculation	Other
Total	**52,172**							
Average	1,110							
New England	**2,480**							
Conn.	1,675	X	X	X	—	X	X	Differentiation media plating.
Mass.	412	X	X	X	—	X	—	—
Me.	97	X	X	X	—	X	X	—
N.H.	47	X	X	X	—	X	—	—
R.I.	89	X	X	X	—	X	—	—
Vt.	160	X	X	X	—	X	—	Slide culture
Middle Atlantic	**1,659**							
N.J.	1,406	X	—	X	—	X	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	253	X	X	X	—	X	—	—
East North Central	**8,843**							
Ill.	1,420	X	X	X	—	X	X	—
Ind.	1,158	X	X	X	—	X	—	—
Mich.	2,368	X	X	X	—	X	X	—
Ohio	993	X	X	X	—	X	X	—
Wisc.	2,904	X	X	X	—	X	X	Drug bioassays, drug susceptibility testing
West North Central	**6,152**							
Ia.	755	X	X	X	X	X	X	—
Kans.	681	X	X	X	—	X	X	—
Minn.	3,673	X	X	X	—	X	X	Assimilation tests
Mo.	506	X	X	X	—	X	X	—
Nebr.	12	X	X	X	—	X	—	—
N.D.	432	X	X	X	—	X	—	—
S.D.	93	—	X	X	—	—	—	—
South Atlantic	**11,097**							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	2,665	X	X	X	—	X	—	—
Ga.	1,009	X	X	X	—	X	X	Hair penetration
Md.	2,398	X	X	X	—	X	—	—
N.C.	1,701	X	X	X	—	X	—	—
S.C.	1,630	X	X	X	X	X	X	Sensitivities (MIC), exoantigen (extract prep.)
Va.	1,135	X	X	X	—	X	X	—
W.Va.	559	X	X	X	X	X	X	—
East South Central	**7,649**							
Ala.	2,817	X	X	X	—	X	—	—
Ky.	224	X	X	X	—	X	X	—
Miss.	2,443	X	X	X	—	X	—	Hair culture
Tenn.	2,165	X	X	X	—	X	X	—
West South Central	**7,901**							
Ark.	—	—	—	—	—	—	—	—
La.	1,619	X	X	X	—	X	X	—
Okla.	2,231	X	X	X	—	X	X	—
Tex.	4,051	X	X	X	—	X	X	—
Mountain	**3,789**							
Ariz.	1,360	X	X	X	—	X	X	In-vitro conversion.
Colo.	229	X	X	X	—	—	—	—
Ida.	964	X	X	X	X	X	X	Immunodiffusion, in-vitro hair test, nutritional tests
Mont.	337	X	X	X	—	X	—	—
Nev.	99	X	X	X	—	—	—	—
N.M.	507	X	X	X	—	X	X	—
Utah	293	X	X	X	—	X	X	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	**1,879**							
Alaska	309	X	X	X	—	X	—	—
Cal.	61	X	X	X	X	X	X	—
Hawaii	756	X	X	X	—	X	X	—
Ore.	403	X	X	X	—	X	—	—
Wash.	350	—	X	X	—	X	X	Tease mounts
Territories	**723**							
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	723	X	X	X	—	X	—	—

Table 4-12
III. PARASITOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Parasitology Specimens	A	B
		Intestinal Specimens	Other Specimens
Total	**404,104**	**397,962**	**6,142**
Average	7,771	7,653	154
New England	**14,528**	**14,028**	**500**
Conn.	10,365	9,877	488
Mass.	26	21	5
Me.	78	78	—
N.H.	1,099	1,096	3
R.I.	1,841	1,840	1
Vt.	1,119	1,116	3
Middle Atlantic	**3,354**	**3,312**	**42**
N.J.	3,055	3,037	18
N.Y.	—	—	—
Pa.	299	275	24
East North Central	**12,208**	**12,120**	**88**
Ill.	943	920	23
Ind.	2,662	2,631	31
Mich.	3,919	3,909	10
Ohio	1,500	1,496	4
Wisc.	3,184	3,164	20
West North Central	**23,953**	**23,639**	**314**
Ia.	1,682	1,670	12
Kans.	5,493	5,488	5
Minn.	13,486	13,215	271
Mo.	1,346	1,328	18
Nebr.	603	602	1
N.D.	980	974	6
S.D.	363	362	1
South Atlantic	**135,394**	**132,309**	**3,085**
Del.	202	202	—
D.C.	297	295	2
Fla.	61,700	61,687	13
Ga.	23,481	20,478	3,003
Md.	8,444	8,421	23
N.C.	5,448	5,446	2
S.C.	20,079	20,076	3
Va.	13,127	13,104	23
W.Va.	2,616	2,600	16
East South Central	**54,471**	**54,385**	**86**
Ala.	33,441	33,365	76
Ky.	4,340	4,340	—
Miss.	9,353	9,346	7
Tenn.	7,337	7,334	3
West South Central	**128,187**	**126,376**	**1,811**
Ark.	—	—	—
La.	115,046	115,042	4
Okla.	4,027	2,247	1,780
Tex.	9,114	9,087	27
Mountain	**8,282**	**8,250**	**32**
Ariz.	334	326	8
Colo.	2,268	2,268	—
Ida.	544	525	19
Mont.	636	636	—
Nev.	259	259	—
N.M.	634	631	3
Utah	3,512	3,510	2
Wyo.	95	95	—
Pacific	**12,085**	**11,901**	**184**
Alaska	1,644	1,643	1
Cal.	1,977	1,795	182
Hawaii	4,007	4,007	—
Ore.	1,309	1,309	—
Wash.	3,148	3,147	1
Territories	**11,642**	**11,642**	**—**
Guam	946	946	—
P.R.	2,236	2,236	—
V.I.	8,460	8,460	—

Table 4-13
III. PARASITOLOGY
A. Intestinal Specimens

Lab & Region	Number of Specimens	Procedures Used				
		Gross	Direct (Incl. Pinworms)	Concentrate Smear	Stained Smear	Other
Total	**397,962**					
Average	7,653					
New England	**14,028**					
Conn.	9,877	X	X	X	X	–
Mass.	21	X	X	X	X	–
Me.	78	X	X	X	X	–
N.H.	1,096	X	X	X	X	–
R.I.	1,840	X	X	X	–	–
Vt.	1,116	X	X	X	X	–
Middle Atlantic	**3,312**					
N.J.	3,037	X	X	X	X	–
N.Y.	–	–	–	–	–	–
Pa.	275	X	X	X	X	Clearing adult helminths and proglottids, egg hatching for *Schistosoma mansoni* miracidia
East North Central	**12,120**					
Ill.	920	X	X	X	X	Culture for *E. histolytica*
Ind.	2,631	X	X	X	X	–
Mich.	3,909	X	X	X	X	–
Ohio	1,496	X	X	X	–	Worm for identification
Wisc.	3,164	X	X	X	X	–
West North Central	**23,639**					
Ia.	1,670	X	X	X	X	–
Kans.	5,488	X	X	X	X	–
Minn.	13,215	X	X	X	X	–
Mo.	1,328	X	X	X	X	–
Nebr.	602	X	X	X	X	–
N.D.	974	X	X	X	X	–
S.D.	362	X	X	X	X	–
South Atlantic	**132,309**					
Del.	202	X	X	X	X	–
D.C.	295	X	X	X	–	–
Fla.	61,687	X	X	X	X	–
Ga.	20,478	X	X	X	X	–
Md.	8,421	X	X	X	X	–
N.C.	5,446	X	X	X	X	–
S.C.	20,076	X	X	X	X	Trichrome stain
Va.	13,104	X	X	X	X	–
W.Va.	2,600	X	X	X	X	PVA-Trichrome
East South Central	**54,385**					
Ala.	33,365	X	X	X	X	–
Ky.	4,340	X	X	X	X	–
Miss.	9,346	–	X	X	X	–
Tenn.	7,334	X	X	X	X	–
West South Central	**126,376**					
Ark.	–	–	–	–	–	–
La.	115,042	X	X	X	X	–
Okla.	2,247	X	X	X	X	–
Tex.	9,087	X	X	X	X	–
Mountain	**8,250**					
Ariz.	326	–	X	X	X	–
Colo.	2,268	–	–	X	X	PVA-Trichrome
Ida.	525	X	X	X	X	–
Mont.	636	X	X	X	X	–
Nev.	259	X	X	X	–	–
N.M.	631	X	X	X	X	–
Utah	3,510	X	X	X	X	–
Wyo.	95	–	X	X	–	–
Pacific	**11,901**					
Alaska	1,643	X	X	X	X	–
Cal.	1,795	X	X	X	X	–
Hawaii	4,007	X	X	X	X	–
Ore.	1,309	X	X	X	X	–
Wash.	3,147	X	X	X	X	–
Territories	**11,642**					
Guam	946	–	X	–	–	Kato Method
P.R.	2,236	X	X	X	X	–
V.I.	8,460	–	X	X	X	–

Table 4-14
III. PARASITOLOGY
B. Other Parasitology Specimens

Lab & Region	Number of Specimens	Types of Specimens			
		Malaria	Trichinosis	Toxoplasmosis	Other (Disease Entity-Procedures Used)
Total	**6,142**				
Average	154				
New England	**500**				
Conn.	488	X	X	—	Water for Giardia, "Swimmer's Itch" studies, materials for identification, soil for helminth eggs
Mass.	5	X	—	—	—
Me.	—	—	—	—	—
N.H.	3	X	—	—	—
R.I.	1	—	X	—	—
Vt.	3	X	X	—	—
Middle Atlantic	**42**				
N.J.	18	X	—	—	Identifications — artifacts, worm proglottids
N.Y.	—	—	—	—	—
Pa.	24	X	X	X	Insect ident., larval parasites in fish, water analysis for protozoa, babesiosis.
East North Central	**88**				
Ill.	23	X	X	X	—
Ind.	31	X	—	—	Filariasis, schistosomiasis, arthropod ID.
Mich.	10	X	—	—	—
Ohio	4	X	X	—	—
Wisc.	20	X	—	—	Bugs for ID
West North Central	**314**				
Ia.	12	X	—	—	—
Kans.	5	X	—	—	Arthropods
Minn.	271	X	—	—	Pinworm slide tape, worm and insect ID.
Mo.	18	X	—	—	Invert
Nebr.	1	X	—	—	—
N.D.	6	X	—	—	—
S.D.	1	X	—	—	—
South Atlantic	**3,085**				
Del.	—	—	—	—	—
D.C.	2	X	—	—	—
Fla.	13	X	—	—	—
Ga.	3,003	X	—	X	—
Md.	23	X	—	—	—
N.C.	2	X	—	—	Insect ID
S.C.	3	X	—	—	—
Va.	23	X	—	—	Parasites for identification
W.Va.	16	—	—	—	Insect ID
East South Central	**86**				
Ala.	76	X	—	—	—
Ky.	—	—	—	—	—
Miss.	7	X	—	—	—
Tenn.	3	X	—	—	—
West South Central	**1,811**				
Ark.	—	—	—	—	—
La.	4	X	X	—	—
Okla.	1,780	X	—	—	Arthropod ID, vaginal smears.
Tex.	27	X	X	—	Amebic meningoencephalitis, filariasis, relapsing fever.
Mountain	**32**				
Ariz.	8	X	—	—	—
Colo.	—	—	—	—	—
Ida.	19	X	X	—	Ectoparasites
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	3	X	—	—	—
Utah	2	X	X	X	Ectoparasite identification, Borrelia (relapsing fever) Trichomonas
Wyo.	—	—	—	—	—
Pacific	**184**				
Alaska	1	X	—	—	—
Cal.	182	X	X	X	Tissue parasites
Hawaii	—	—	—	—	—
Ore.	—	—	—	—	—
Wash.	1	X	—	—	—
Territories	**—**				
Guam	—	—	—	—	—
P.R.	—	—	—	—	—
V.I.	—	—	—	—	—

Table 4-15
IV. VIROLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Virology Specimens	A	B	C	D
		Rabies Specimens	Viral Isolations	Rickettsial Ident. Isolations	Other
Total	**215,932**	**57,813**	**111,801**	**6,435**	**39,883**
Average	4,319	1,156	2,795	804	3,988
New England	**15,697**	**1,870**	**13,790**	**37**	**–**
Conn.	10,440	646	9,794	–	–
Mass.	3,963	602	3,324	37	–
Me.	821	192	629	–	–
N.H.	254	254	–	–	–
R.I.	71	71	–	–	–
Vt.	148	105	43	–	–
Middle Atlantic	**14,543**	**2,835**	**8,627**	**16**	**3,065**
N.J.	13,045	2,585	7,379	16	3,065
N.Y.	–	–	–	–	–
Pa.	1,498	250	1,248	–	–
East North Central	**49,762**	**10,951**	**28,085**	**1,647**	**9,079**
Ill.	9,273	2,296	6,977	–	–
Ind.	2,949	2,321	628	–	–
Mich.	3,474	882	2,544	–	48
Ohio	15,566	3,117	1,771	1,647	9,031
Wisc.	18,500	2,335	16,165	–	–
West North Central	**38,698**	**5,467**	**8,713**	**–**	**24,518**
Ia.	2,844	628	2,216	–	–
Kans.	2,227	1,381	846	–	–
Minn.	5,537	1,122	4,415	–	–
Mo.	2,486	1,250	1,236	–	–
Nebr.	598	598	–	–	–
N.D.	24,951	433	–	–	24,518
S.D.	55	55	–	–	–
South Atlantic	**33,301**	**11,423**	**17,254**	**4,563**	**61**
Del.	1,377	318	1,059	–	–
D.C.	40	40	–	–	–
Fla.	6,125	3,597	2,528	–	–
Ga.	3,880	2,066	1,766	–	48
Md.	4,885	2,019	2,853	–	13
N.C.	3,446	1,219	2,227	–	–
S.C.	6,659	1,097	999	4,563	–
Va.	1,225	516	709	–	–
W.Va.	5,664	551	5,113	–	–
East South Central	**10,320**	**6,563**	**3,374**	**1**	**382**
Ala.	3,358	1,835	1,140	1	382
Ky.	1,934	1,394	540	–	–
Miss.	1,300	527	773	–	–
Tenn.	3,728	2,807	921	–	–
West South Central	**29,741**	**13,129**	**14,284**	**–**	**2,328**
Ark.	–	–	–	–	–
La.	2,892	2,875	17	–	–
Okla.	4,586	2,967	1,619	–	–
Tex.	22,263	7,287	12,648	–	2,328
Mountain	**9,260**	**3,656**	**5,550**	**54**	**–**
Ariz.	3,876	1,418	2,458	–	–
Colo.	744	744	–	–	–
Ida.	870	139	679	52	–
Mont.	361	28	333	–	–
Nev.	–	–	–	–	–
N.M.	1,132	666	466	–	–
Utah	1,895	279	1,614	2	–
Wyo.	382	382	–	–	–
Pacific	**14,358**	**1,667**	**12,124**	**117**	**450**
Alaska	2,386	143	1,893	–	350
Cal.	6,038	860	4,961	117	100
Hawaii	2,108	3	2,105	–	–
Ore.	2,815	308	2,507	–	–
Wash.	1,011	353	658	–	–
Territories	**252**	**252**	**–**	**–**	**–**
Guam	11	11	–	–	–
P.R.	241	241	–	–	–
V.I.	–	–	–	–	–

Table 4-16
IV. VIROLOGY
A. Rabies Specimens

Lab & Region	Number of Specimens	Procedures Used		
		Stained Smear	FRA	Animal Inoculation
Total	**57,813**			
Average	1,156			
New England	**1,870**			
Conn.	646	X	X	X
Mass.	602	–	X	X
Me.	192	–	X	X
N.H.	254	X	X	X
R.I.	71	–	X	X
Vt.	105	–	X	X
Middle Atlantic	**2,835**			
N.J.	2,585	–	X	X
N.Y.	–	–	–	–
Pa.	250	–	X	X
East North Central	**10,951**			
Ill.	2,296	–	X	–
Ind.	2,321	X	X	–
Mich.	882	–	X	X
Ohio	3,117	X	X	X
Wisc.	2,335	–	X	X
West North Central	**5,467**			
Ia.	628	–	X	X
Kans.	1,381	–	X	X
Minn.	1,122	–	X	X
Mo.	1,250	X	X	X
Nebr.	598	–	X	–
N.D.	433	X	–	–
S.D.	55	–	X	–
South Atlantic	**11,423**			
Del.	318	X	X	–
D.C.	40	–	X	–
Fla.	3,597	X	X	–
Ga.	2,066	–	X	X
Md.	2,019	X	X	X
N.C.	1,219	X	X	–
S.C.	1,097	–	X	X
Va.	516	X	X	X
W.Va.	551	X	X	X
East South Central	**6,563**			
Ala.	1,835	X	X	X
Ky.	1,394	X	X	X
Miss.	527	X	X	–
Tenn.	2,807	–	X	X
West South Central	**13,129**			
Ark.	–	–	–	–
La.	2,875	–	X	X
Okla.	2,967	–	X	X
Tex.	7,287	–	X	X
Mountain	**3,656**			
Ariz.	1,418	–	X	–
Colo.	744	–	X	X
Ida.	139	–	X	–
Mont.	28	–	–	–
Nev.	–	–	–	–
N.M.	666	–	X	X
Utah	279	X	X	X
Wyo.	382	–	X	–
Pacific	**1,667**			
Alaska	143	–	X	X
Cal.	860	–	X	X
Hawaii	3	X	X	–
Ore.	308	X	X	X
Wash.	353	–	X	X
Territories	**252**			
Guam	11	–	X	–
P.R.	241	–	X	X
V.I.	–	–	–	–

Table 4-17
IV. VIROLOGY
B. Viral Isolation Specimens

Lab	Number of Specimens	Types of Specimens						Procedures Used									
		Enteric	Arbovirus Human Origin	Arbovirus Non-Human Orig.	Respiratory	Exanthem	Other	Tissue Culture Hosts	Eggs	Animal Hosts	HI/HA	CF	Neutralization Tests	FA-Orig. Spec.	FA-Other	HAdi/HAd	Other
Total	**111,801**																
Average	2,795																
Ala.	1,140	X	–	–	X	X	–	X	X	X	X	–	X	–	–	X	–
Aleska	1,893	X	X	X	X	X	–	X	X	–	X	–	X	X	X	–	–
Ariz.	2,458	X	X	–	X	X	Miscellaneous; i.e. central nervous system	X	X	–	–	–	X	–	–	–	–
Cal.	4,961	X	–	X	X	X	Skin lesions, urine, pleural fluid, autopsy tissues, virus isolates for identifications, birds, mosquitoes, animal tissues (other than rabies specimens)	X	X	X	X	X	X	X	X	X	Electron microscopy
Conn.	9,794	X	X	–	X	X	Cytomegalovirus	X	X	X	X	X	X	–	X	X	–
Del.	1,059	X	X	–	X	X	–	X	X	X	X	X	X	X	X	X	–
Fla.	2,528	X	X	X	X	X	–	X	X	X	X	X	X	X	X	X	–
Ga.	1,766	X	X	X	X	X	Cytomegalovirus	X	X	X	X	X	X	X	X	X	Electron microscopy, immunoelectron microscopy, histochemical stain, passive hemagglutinetion test.
Hawaii	2,105	X	–	–	X	X	CMV, herpes	X	X	–	X	X	X	X	–	X	–
Ida.	679	–	–	–	X	X	–	X	X	–	X	–	–	X	X	–	–
Ill.	6,977	X	X	X	X	X	–	X	X	X	X	X	X	–	–	X	–
Ind.	628	X	–	–	X	X	–	X	–	–	X	X	X	–	–	–	–
Ia.	2,216	X	X	X	X	–	Blood, SF, tissue	X	X	X	X	–	X	–	–	–	–
Kans.	846	X	X	X	X	X	Cytomegalovirus	X	X	X	X	X	X	–	–	X	–
Ky.	540	X	X	–	X	X	Autopsy material	X	X	–	X	X	X	–	–	X	–
La.	17	–	X	X	X	–	–	–	–	X	–	–	–	–	–	–	–
Me.	629	X	–	–	X	X	Vesicles	X	X	–	X	–	–	–	X	–	–
Md.	2,853	X	X	X	X	X	–	X	X	X	X	X	X	X	X	X	Electron microscopy, RIA – hepatitis
Mass.	3,324	X	X	X	X	X	Tissues and fluids (human and animal), Mosquitoes (speciated and pooled), referred virus/rickettsial isolates.	X	X	–	X	X	X	–	–	X	Plaque formation (arbovirus detection), Plaque reduction (neutralization)
Mich.	2,544	X	–	–	X	X	Genital, CNS	X	X	X	X	X	X	–	–	X	–
Minn.	4,415	X	–	–	X	X	–	X	–	X	X	X	X	–	X	X	–
Miss.	773	–	X	X	–	–	–	–	–	–	X	–	–	–	–	–	–
Mo.	1,236	X	X	X	X	X	Mycoplasma	X	X	X	X	X	X	–	X	X	–
Mont.	333	X	–	–	X	X	–	X	–	–	X	X	X	–	–	X	–
N.J.	7,379	X	X	X	X	X	CNS specimens (non-arbovirus, mosquito pools)	X	X	X	X	–	X	X	X	X	Interference/interference inhibition
N.M.	466	X	–	–	X	X	–	X	X	X	X	X	X	–	X	–	–
N.C.	2,227	X	X	X	X	X	–	X	X	X	X	X	X	–	X	X	–
Ohio	1,771	X	X	–	X	X	–	X	X	X	X	X	X	X	X	X	–
Okla.	1,619	X	–	–	X	X	Lesion, urine, tissue, CSF	X	X	X	X	–	X	–	–	X	–
Ore.	2,507	X	–	–	X	X	Biopsy/autopsy tissue	X	X	–	X	X	X	–	–	X	–
Pa.	1,248	X	X	–	X	X	CMV, herpes	X	X	X	X	–	X	–	–	X	–
S.C.	999	X	X	X	X	X	Urine, tissue, vaginal swab	X	X	X	X	X	X	X	X	X	Mycoplesma (biphasic medie)
Tenn.	921	X	–	–	X	X	–	X	X	X	X	–	X	X	–	X	–
Tex.	12,648	X	X	X	X	X	Herpes, CMV, rubella, LCM, reference	X	X	X	X	X	X	–	–	X	–
Utah	1,614	X	X	X	X	X	–	X	X	X	X	X	X	X	X	X	–
Vt.	43	–	–	–	X	–	–	–	X	–	X	–	–	–	–	–	–
Va.	709	X	X	–	X	–	Tissue, urine, human organs, pleural fluid	X	X	X	–	–	X	–	–	–	–
Wash.	658	X	–	X	X	X	Chlamydia – psittacosis in birds	X	X	X	X	–	X	–	–	X	Macchievello stein
W.Va.	5,113	X	–	–	X	X	CMV	X	X	X	X	X	X	X	X	X	–
Wisc.	16,165	X	X	–	X	X	Tissue (biopsy/autopsy), CSF, blood	X	X	X	X	X	X	X	X	X	–

Table 4-18
IV. VIROLOGY
C. Rickettsial Identification Specimens

Lab & Region	Number of Specimens	Type of Specimens		Procedures Used		
		Tick	Other	Hemolymph	FA	Other
Total	**6,435**					
Average	804					
New England	**37**					
Conn.	–	–	–	–	–	–
Mass.	37	–	X	–	–	CF
Me.	–	–	–	–	–	–
N.H.	–	–	–	–	–	–
R.I.	–	–	–	–	–	–
Vt.	–	–	–	–	–	–
Middle Atlantic	**16**					
N.J.	16	X	X	X	X	Egg inoculation (yolk sac), guinea pig inoculation
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	–
East North Central	**1,647**					
Ill.	–	–	–	–	–	–
Ind.	–	–	–	–	–	–
Mich.	–	–	–	–	–	–
Ohio	1,647	X	–	X	X	–
Wisc.	–	–	–	–	–	–
West North Central	**–**					
Ia.	–	–	–	–	–	–
Kans.	–	–	–	–	–	–
Minn.	–	–	–	–	–	–
Mo.	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–
N.D.	–	–	–	–	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**4,563**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	–	–	–	–	–	–
Ga.	–	–	–	–	–	–
Md.	–	–	–	–	–	–
N.C.	–	–	–	–	–	–
S.C.	4,563	X	–	X	X	–
Va.	–	–	–	–	–	–
W.Va.	–	–	–	–	–	–
East South Central	**1**					
Ala.	1	X	–	–	–	–
Ky.	–	–	–	–	–	–
Miss.	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–
West South Central	**–**					
Ark.	–	–	–	–	–	–
La.	–	–	–	–	–	–
Okla.	–	–	–	–	–	–
Tex.	–	–	–	–	–	–
Mountain	**54**					
Ariz.	–	–	–	–	–	–
Colo.	–	–	–	–	–	–
Ida.	52	–	X	–	X	Plaquing.
Mont.	–	–	–	–	–	–
Nev.	–	–	–	–	–	–
N.M.	–	–	–	–	–	–
Utah	2	–	X	–	–	Stain
Wyo.	–	–	–	–	–	–
Pacific	**117**					
Alaska	–	–	–	–	–	–
Cal.	117	X	X	–	X	–
Hawaii	–	–	–	–	–	–
Ore.	–	–	–	–	–	–
Wash.	–	–	–	–	–	–
Territories	**–**					
Guam	–	–	–	–	–	–
P.R.	–	–	–	–	–	–
V.I.	–	–	–	–	–	–

Table 4-19
IV. VIROLOGY
D. Other Virology Specimens

Lab	Number of Specimens	Disease Entity – Procedures Used
Total	**39,883**	
Average	3,988	
Ala.	382	SLE – HA/HI; herpes serology – NI.
Alaska	350	Infectious Hematopoietic Necrosis Virus (IHNV) – tissue culture (Salmon).
Cal.	100	Viral gastroenteritis – electron microscopy; sewage effluents/treated waters – virus concentration, recovery, and identification.
Ga.	48	*Herpes simplex* – FA.
Md.	13	Environmental samples.
Mich.	48	Viral isolates for identification – culture, HA/HI, CF, FA, HAd/HAdI.
N.J.	3,065	Psittacosis – Gimenez staining and animal inoculation; hepatitis – radioimmunoassay; E-B virus – Ox cell hemolysin; smallpox – vaccinia HAI test; Legionnaires' disease – indirect and direct FA.
N.D.	24,518	Rubella – HI; encephalitis – CF; herpes, mumps, E-B – immunofluorescence; V-Z, ANA.
Ohio	9,031	Arbovirus – mosquito pools – all cultures, suckling mice.
Tex.	2,328	Mycoplasma, psittacosis, bird blood (arbovirus).

Table 4-20
V. IMMUNOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Immunology Specimens	A Syphilis Serology	B Bacterial Serology	C Fungal Serology	D Parasitological Serology	E Viral and Rickettsial Serology	F Other
Total	**8,730,640**	**7,078,185**	**68,950**	**143,523**	**180,081**	**1,250,909**	**8,992**
Average	167,897	136,119	1,436	4,630	5,297	25,529	1,124
New England	**552,949**	**447,452**	**20,872**	**738**	**8,398**	**74,746**	**743**
Conn.	119,921	97,325	828	–	2,839	18,699	230
Mass.	213,818	201,456	130	96	2,406	9,217	513
Me.	32,837	14,750	166	577	3,106	14,238	–
N.H.	43,115	43,115	–	–	–	–	–
R.I.	97,783	59,007	18,063	–	40	20,673	–
Vt.	45,475	31,799	1,685	65	7	11,919	–
Middle Atlantic	**220,572**	**176,467**	**545**	**564**	**2,225**	**38,648**	**2,123**
N.J.	213,904	175,538	448	–	1,782	35,123	1,013
N.Y.	–	–	–	–	–	–	–
Pa.	6,668	929	97	564	443	3,525	1,110
East North Central	**840,412**	**632,761**	**4,904**	**19,522**	**16,805**	**161,524**	**4,896**
Ill.	146,500	129,156	181	6,030	1,943	9,190	–
Ind.	67,178	57,916	607	2,182	580	5,893	–
Mich.	338,665	267,286	1,070	4,733	2,199	63,377	–
Ohio	98,290	77,085	396	3,791	2,118	14,900	–
Wisc.	189,779	101,318	2,650	2,786	9,965	68,164	4,896
West North Central	**862,604**	**654,352**	**13,057**	**11,283**	**5,773**	**178,139**	**–**
Ia.	234,044	149,375	7,246	1,657	2,696	73,070	–
Kans.	118,334	89,428	186	1,473	–	27,247	–
Minn.	276,448	218,891	1,772	4,141	1,706	49,938	–
Mo.	80,681	65,099	254	4,012	1,371	9,945	–
Nebr.	57,619	54,490	1,549	–	–	1,580	–
N.D.	55,595	51,977	1,449	–	–	2,169	–
S.D.	39,883	25,092	601	–	–	14,190	–
South Atlantic	**2,421,522**	**2,005,374**	**15,564**	**13,036**	**20,589**	**365,975**	**984**
Del.	31,098	30,008	–	–	250	840	–
D.C.	101,641	101,113	53	–	12	463	–
Fla.	621,116	559,879	1,365	–	1,280	58,592	–
Ga.	493,385	458,826	929	2,174	2,990	28,466	–
Md.	413,317	236,774	6,394	5,287	10,154	153,771	937
N.C.	297,985	235,772	750	2,597	3,104	55,762	–
S.C.	247,741	195,770	400	1,360	950	49,214	47
Va.	167,612	141,171	5,645	1,372	1,561	17,863	–
W.Va.	47,627	46,061	28	246	288	1,004	–
East South Central	**1,184,993**	**1,067,561**	**1,552**	**11,572**	**5,572**	**98,736**	**–**
Ala.	501,266	454,320	88	2,152	4,321	40,385	–
Ky.	148,650	124,564	83	3,802	1,251	18,950	–
Miss.	272,779	268,174	1,087	2,359	–	1,159	–
Tenn.	262,298	220,503	294	3,259	–	38,242	–
West South Central	**1,424,365**	**1,275,599**	**6,534**	**36,389**	**4,715**	**101,128**	**–**
Ark.	–	–	–	–	–	–	–
La.	216,624	138,955	3,333	7,483	984	65,869	–
Okla.	139,725	132,969	689	1,589	–	4,478	–
Tex.	1,068,016	1,003,675	2,512	27,317	3,731	30,781	–
Mountain	**596,555**	**445,897**	**2,923**	**25,491**	**4,867**	**117,131**	**246**
Ariz.	69,428	39,284	34	25,076	1,303	3,731	–
Colo.	214,214	155,732	95	–	–	58,387	–
Ida.	22,642	14,921	33	119	2,728	4,841	–
Mont.	53,419	28,694	264	296	123	24,042	–
Nev.	36,239	35,909	44	–	–	40	246
N.M.	101,184	89,882	–	–	–	11,302	–
Utah	78,695	69,839	2,379	–	713	5,764	–
Wyo.	20,734	11,636	74	–	–	9,024	–
Pacific	**489,876**	**244,305**	**1,955**	**24,928**	**111,137**	**107,551**	**–**
Alaska	66,658	52,823	27	–	–	13,808	–
Cal.	64,994	24,904	785	24,144	2,740	12,421	–
Hawaii	51,200	31,235	247	–	–	19,718	–
Ore.	263,870	98,960	699	784	108,397	55,030	–
Wash.	43,154	36,383	197	–	–	6,574	–
Territories	**136,792**	**128,417**	**1,044**	**–**	**–**	**7,331**	**–**
Guam	1,606	1,478	128	–	–	–	–
P.R.	126,530	118,283	916	–	–	7,331	–
V.I.	8,656	8,656	–	–	–	–	–

Table 4-21
V.IMMUNOLOGY
A. Syphilis Serology Specimens

Lab & Region	Number of Specimens	Procedures Used								
		VDRL	RPR	ART	USR	FTA-ABS	FTA-ABS (IgM)	MHA-TP	Dark-field	Other
Total	**7,078,185**									
Average	136,119									
New England	**447,452**									
Conn.	97,325	X	X	X	—	X	—	—	X	RST
Mass.	201,456	X	X	—	—	—	—	—	—	AFTA-ABS
Me.	14,750	X	X	—	—	X	—	X	—	CSF-VDRL
N.H.	43,115	X	X	X	—	X	—	—	—	—
R.I.	59,007	X	—	—	—	X	—	—	—	—
Vt.	31,799	—	—	X	—	—	—	—	X	FA Darkfield
Middle Atlantic	**176,467**									
N.J.	175,538	X	—	—	—	X	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	929	X	X	—	—	X	—	—	—	—
East North Central	**632,761**									
Ill.	129,156	X	X	—	—	X	—	X	—	—
Ind.	57,916	X	X	X	—	X	—	—	—	—
Mich.	267,286	X	—	—	—	X	—	X	X	—
Ohio	77,085	X	—	—	—	X	—	—	—	—
Wisc.	101,318	X	—	—	—	X	X	X	X	—
West North Central	**654,352**									
Ia.	149,375	X	—	—	—	X	X	—	X	AFTA-ABS
Kans.	89,428	X	—	—	—	X	—	—	—	—
Minn.	218,891	X	—	—	—	X	—	—	X	Quantitative VDRL
Mo.	65,099	X	X	—	—	X	—	—	—	—
Nebr.	54,490	X	—	—	X	X	—	—	X	—
N.D.	51,977	—	X	—	—	X	—	—	X	—
S.D.	25,092	X	X	—	—	X	—	X	—	—
South Atlantic	**2,005,374**									
Del.	30,008	X	—	—	—	X	—	—	X	—
D.C.	101,113	X	—	—	X	X	—	X	—	—
Fla.	559,879	X	—	—	—	X	—	—	—	—
Ga.	458,826	X	—	—	—	X	—	—	—	—
Md.	236,774	X	X	—	—	X	X	—	X	—
N.C.	235,772	X	—	—	—	X	—	—	—	DEATP
S.C.	195,770	X	X	—	—	X	—	—	X	—
Va.	141,171	X	X	—	—	X	—	—	—	—
W.Va.	46,061	X	X	X	—	X	—	—	—	—
East South Central	**1,067,561**									
Ala.	454,320	X	—	—	—	X	—	—	—	—
Ky.	124,564	X	X	—	—	X	—	—	X	—
Miss.	268,174	X	X	—	—	X	—	—	—	—
Tenn.	220,503	X	X	—	—	X	—	X	—	—
West South Central	**1,275,599**									
Ark.	—	—	—	—	—	—	—	—	—	—
La.	138,955	—	—	—	—	X	—	—	—	—
Okla.	132,969	X	X	—	—	X	—	—	X	VDRL-spinal fluid, total protein
Tex.	1,003,675	X	X	—	—	X	—	—	—	—
Mountain	**445,897**									
Ariz.	39,284	X	X	—	—	X	—	—	—	—
Colo.	155,732	X	X	—	—	X	—	—	—	—
Ida.	14,921	—	X	—	X	X	—	—	X	—
Mont.	28,694	X	—	—	—	X	—	—	—	—
Nev.	35,909	X	—	—	—	X	—	—	—	—
N.M.	89,882	X	X	—	—	X	—	—	—	—
Utah	69,839	X	X	—	—	X	—	—	—	FADF
Wyo.	11,636	X	—	—	—	X	—	—	—	—
Pacific	**244,305**									
Alaska	[illegible]023	X	X	—	—	X	—	—	X	—
C	2[illegible]04	X	—	—	—	X	—	—	X	DEATP
Hawaii	31,235	X	X	—	—	X	—	—	X	Gum mastic
Ore.	98,960	X	X	X	—	X	X	—	X	—
Wash.	36,383	X	X	—	—	X	—	—	—	—
Territories	**128,417**									
Guam	1,478	X	—	—	—	X	—	—	X	—
P.R.	118,283	X	—	—	—	X	—	—	—	—
V.I.	8,656	X	—	X	—	X	—	—	X	—

Table 4-22
V. IMMUNOLOGY
B. Bacterial Serology Specimens

Lab & Region	Number of Specimens	Types of Specimens					
		Brucellosis	Tularemia	Strept. Antibodies	Leptospirosis	Salmonella	Other
Total	**68,950**						
Avarage	1,436						
New England	**20,872**						
Conn.	828	X	X	X	–	X	–
Mass.	130	X	X	–	–	X	Weil–Felix, partussis-seroconvarsion
Ma.	166	–	–	–	–	X	Haemophilus, *N. meningiditis*, Shigalla
N.H.	–	–	–	–	–	–	–
R.I.	18,063	X	–	–	X	X	–
Vt.	1,685	X	X	–	–	X	Lagionnaires' diseasa
Middle Atlantic	**545**						
N.J.	448	X	X	–	X	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	97	X	X	–	X	–	Tetanus, hepatitis, diphtheria
East North Central	**4,904**						
Ill.	181	X	X	–	–	X	–
Ind.	607	X	X	–	X	X	–
Mich.	1,070	X	X	X	X	–	Lagionnaires' disease, pertussis
Ohio	396	X	X	–	X	–	–
Wisc.	2,650	X	X	X	–	X	–
West North Central	**13,057**						
Ia.	7,246	X	X	X	X	–	–
Kans.	186	X	X	–	X	–	–
Minn.	1,772	X	X	X	–	X	–
Mo.	254	X	X	–	–	–	–
Nebr.	1,549	X	X	–	X	–	–
N.D.	1,449	X	X	–	–	X	–
S.D.	601	X	X	X	–	X	–
South Atlantic	**15,564**						
Dal.	–	–	–	–	–	–	–
D.C.	53	–	–	–	–	–	Legionnaires' disease
Fla.	1,365	X	–	–	X	–	Typhoid
Ga.	929	X	X	–	–	–	Proteus OX19
Md.	6,394	X	X	X	X	X	Gonococcus, pertussis, meningococcus, anti-DNase-B, anti-hyaluronidase, Listeria, Legionnaires' disaasa, tetanus antitoxin.
N.C.	750	X	X	X	–	–	Legionnaires'
S.C.	400	X	X	–	X	X	Protaus OX19, OXK & OX2 Legionnaires' disease
Va.	5,645	X	X	X	X	X	Wail-Felix
W.Va.	28	–	–	X	–	–	–
East South Central	**1,552**						
Ala.	88	X	X	–	–	–	–
Ky.	83	X	X	–	–	X	Typhoid O, H, Vi
Miss.	1,087	X	X	X	–	–	–
Tann.	294	X	X	–	–	–	–
West South Central	**6,534**						
Ark.	–	–	–	–	–	–	–
La.	3,333	X	X	–	X	X	Shigella, *E. coli*.
Okla.	689	X	X	–	X	–	–
Tex.	2,512	X	X	–	X	X	Legionnairas' diseasa – IFA.
Mountain	**2,923**						
Ariz.	34	X	X	–	–	–	–
Colo.	95	X	X	–	–	–	–
Ida.	33	X	X	–	–	–	–
Mont.	264	X	X	–	–	–	–
Nav.	44	–	–	–	–	–	–
N.M.	–	–	–	–	–	–	–
Utah	2,379	X	X	–	–	–	Proteus OX19
Wyo.	74	X	X	–	–	–	–
Pacific	**1,955**						
Alaska	27	X	X	X	–	–	–
Cal.	785	X	X	–	X	X	*Yersinia enterocolitica*, *Yersinia pseudotuberculosis*
Hawaii	247	X	X	X	X	X	Hatarophile
Ora.	699	X	X	–	X	X	–
Wash.	197	X	X	–	X	–	Proteus OX2, OX11, OX19.
Territories	**1,044**						
Guam	128	–	–	–	–	X	Shigalla, *Vibrio cholerae*, *Haemophilus influenzae*, gonococcus, meningitidis.
P.R.	916	X	–	X	–	X	–
V.I.	–	X	–	X	–	X	–

Table 4-23
V. IMMUNOLOGY
C. Fungal Serology Specimens

Lab & Region	Number of Specimens	Types of Specimens						
		Blastomycosis	Coccidioido-mycosis	Histoplasmosis	Cryptococcus	Aspergillus	Candidiasis	Other
Total	**143,523**							
Average	4,630							
New England	**738**							
Conn.	—	—	—	—	—	—	—	—
Mass.	96	—	—	—	X	—	—	—
Me.	577	X	X	X	X	X	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	—	—	—	—	—	—	—	—
Vt.	65	X	X	X	—	—	—	—
Middle Atlantic	**564**							
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	564	X	X	X	X	X	X	Actinomyces
East North Central	**19,522**							
Ill.	6,030	X	X	X	—	—	—	—
Ind.	2,182	X	X	X	X	—	—	—
Mich.	4,733	X	X	X	—	—	—	—
Ohio	3,791	X	X	X	X	—	—	—
Wisc.	2,786	X	X	X	X	—	—	—
West North Central	**11,283**							
Ia.	1,657	X	X	X	X	—	—	—
Kans.	1,473	X	X	X	—	—	—	—
Minn.	4,141	X	X	X	—	—	—	—
Mo.	4,012	X	X	X	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	—	—	—	—
S.D.	—	—	—	—	—	—	—	—
South Atlantic	**13,036**							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—
Ga.	2,174	X	X	X	X	X	X	Sporotrichosis
Md.	5,287	X	X	X	X	X	X	—
N.C.	2,597	X	X	X	—	—	—	—
S.C.	1,360	X	X	X	X	X	X	—
Va.	1,372	X	X	X	—	—	—	—
W.Va.	246	X	X	X	—	—	—	—
East South Central	**11,572**							
Ala.	2,152	X	X	X	—	X	—	—
Ky.	3,802	X	X	X	—	—	—	—
Miss.	2,359	X	X	X	—	—	—	—
Tenn.	3,259	X	—	X	—	—	—	—
West South Central	**36,389**							
Ark.	—	—	—	—	—	—	—	—
La.	7,483	X	X	X	X	—	—	—
Okla.	1,589	X	X	X	X	X	—	—
Tex.	27,317	X	X	X	X	—	—	—
Mountain	**25,491**							
Ariz.	25,076	X	X	X	—	—	—	—
Colo.	—	—	—	—	—	—	—	—
Ida.	119	X	X	X	—	—	—	—
Mont.	296	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	**24,928**							
Alaska	—	—	—	—	—	—	—	—
Cal.	24,144	—	X	X	X	—	—	—
Hawaii	—	—	—	—	—	—	—	—
Ore.	784	X	X	X	X	X	X	—
Wash.	—	—	—	—	—	—	—	—
Territories	**—**							
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—

Table 4-24
V. IMMUNOLOGY
D. Parasitological Serology Specimens

Lab & Region	Number of Specimens	Types of Specimens			
		Trichinosis	Toxoplasmosis	Amebiasis	Other
Total	**180,081**				
Average	5,297				
New England	**8,398**				
Conn.	2,839	X	X	–	–
Mass.	2,406	–	X	X	–
Me.	3,106	–	X	–	–
N.H.	–	–	–	–	–
R.I.	40	–	X	–	–
Vt.	7	X	–	–	–
Middle Atlantic	**2,225**				
N.J.	1,782	X	X	–	–
N.Y.	–	–	–	–	–
Pa.	443	X	X	X	Echinococcus, trypanosomiasis, giardiasis, filariasis, malaria, Strongyloides, schistosomiasis, Pneumocytosis, paragonimiasis
East North Central	**16,805**				
Ill.	1,943	–	X	–	–
Ind.	580	X	X	–	–
Mich.	2,199	X	X	–	–
Ohio	2,118	–	X	–	–
Wisc.	9,965	–	X	–	–
West North Central	**5,773**				
Ia.	2,696	X	X	–	–
Kans.	–	–	–	–	–
Minn.	1,706	–	X	–	–
Mo.	1,371	X	X	–	–
Nebr.	–	–	–	–	–
N.D.	–	–	–	–	–
S.D.	–	–	–	–	–
South Atlantic	**20,589**				
Del.	250	–	X	–	–
D.C.	12	–	X	–	–
Fla.	1,280	–	X	–	–
Ga.	2,990	–	X	–	–
Md.	10,154	X	X	X	Echinococcus, trypanosomiasis
N.C.	3,104	–	X	–	–
S.C.	950	–	X	X	–
Va.	1,561	X	X	–	–
W.Va.	288	–	X	–	–
East South Central	**5,572**				
Ala.	4,321	–	X	X	–
Ky.	1,251	–	X	–	–
Miss.	–	–	–	–	–
Tenn.	–	–	–	–	–
West South Central	**4,715**				
Ark.	–	–	–	–	–
La.	984	–	X	–	–
Okla.	–	–	–	–	–
Tex.	3,731	–	X	X	–
Mountain	**4,867**				
Ariz.	1,303	–	X	–	–
Colo.	–	–	–	–	–
Ida.	2,728	–	X	–	–
Mont.	123	–	–	–	–
Nev.	–	–	–	–	–
N.M.	–	–	–	–	–
Utah	713	–	X	–	–
Wyo.	–	–	–	–	–
Pacific	**111,137**				
Alaska	–	–	–	–	–
Cal.	2,740	X	X	–	–
Hawaii	–	–	–	–	–
Ore.	108,397	X	X	X	–
Wash.	–	–	–	–	–
Territories	**–**				
Guam	–	–	–	–	–
P.R.	–	–	–	–	–
V.I.	–	–	–	–	–

Table 4-25
V. IMMUNOLOGY
E. Viral and Rickettsial Serology Specimens

Lab & Region	Number of Specimens	Procedures Used													
		CF	HI	HAdl	Immunodiffusion (Agar Gel)	Neut. (Tissue Cul.)	Neut. Rebies	FA	Radioimmunoassay	Passive Hemagglutination	Reverse Passive Hemagglutination	Ox-Cell Hemolysin	Slide Agglutination	Heterophile Tests	Other
Total	**1,250,909**														
Average	25,529														
New England	**74,746**														
Conn.	18,699	X	X	–	X	X	–	–	X	–	X	X	–	–	–
Mass.	9,217	X	X	X	X	X	–	–	X	–	–	X	–	–	Plaque reduction
Me.	14,238	X	X	–	–	–	–	X	–	X	X	–	–	X	–
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	20,673	–	X	–	–	–	–	X	–	X	–	–	X	X	–
Vt.	11,919	X	X	–	–	–	–	–	–	–	–	X	–	–	–
Middle Atlantic	**38,648**														
N.J.	35,123	X	X	–	X	X	–	X	X	–	X	X	–	–	Neutralization (animals), Weil-Felix
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	3,525	X	X	–	–	X	–	X	–	–	–	–	–	–	–
East North Central	**161,524**														
Ill.	9,190	X	X	–	–	–	–	–	–	–	–	–	–	X	–
Ind.	5,893	X	X	–	–	X	–	–	–	–	–	X	X	X	–
Mich.	63,377	X	X	–	–	X	–	–	X	–	–	X	–	–	–
Ohio	14,900	X	X	–	–	–	–	–	–	–	–	X	–	X	–
Wisc.	68,164	X	X	X	X	X	X	X	X	X	–	X	–	–	Specific IgM (sucrose density gradient)
West North Central	**178,139**														
Ia.	73,070	X	X	–	–	X	–	–	X	–	–	–	–	X	–
Kans.	27,247	X	X	–	–	X	–	–	X	X	–	–	–	–	–
Minn.	49,938	X	X	X	–	X	–	X	X	–	–	X	–	–	–
Mo.	9,945	X	X	X	–	–	–	–	–	–	–	X	X	X	–
Nebr.	1,580	–	X	–	–	–	–	–	–	–	–	–	–	X	–
N.D.	2,169	X	X	–	–	–	–	X	–	–	–	X	X	X	–
S.D.	14,190	–	X	–	–	–	–	–	–	–	–	–	–	–	–
South Atlantic	**365,975**														
Del.	840	X	X	X	–	X	–	X	–	–	–	–	–	–	–
D.C.	463	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Fla.	58,592	X	X	X	–	X	–	–	–	–	X	–	–	X	–
Ga.	28,466	X	X	–	–	X	–	–	–	X	–	–	–	–	–
Md.	153,771	X	X	X	X	X	–	X	X	–	–	X	X	X	–
N.C.	55,762	X	X	–	–	X	–	–	X	–	–	X	–	–	–
S.C.	49,214	X	X	–	–	X	–	X	X	–	X	X	X	–	–
Va.	17,863	X	X	X	–	–	–	X	–	–	–	X	X	X	–
W.Va.	1,004	X	–	–	–	–	–	–	–	–	–	–	–	X	–
East South Central	**98,736**														
Ala.	40,385	X	X	–	X	–	–	–	–	–	–	–	–	–	–
Ky.	18,950	X	X	–	–	–	–	–	–	–	–	–	–	X	–
Miss.	1,159	–	X	–	–	–	–	–	–	–	–	–	–	–	–
Tenn.	38,242	X	X	–	–	X	–	–	–	–	–	–	–	–	–
West South Central	**101,128**														
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	65,869	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	4,478	X	X	–	–	–	–	–	–	–	–	–	X	X	–
Tex.	30,781	X	X	–	–	–	–	–	–	–	X	–	–	–	–
Mountain	**117,131**														
Ariz.	3,731	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Colo.	58,387	X	X	–	–	–	–	–	–	–	–	X	–	X	–
Ida.	4,841	X	X	–	–	X	–	–	–	X	–	–	–	–	IFA
Mont.	24,042	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nev.	40	–	X	–	–	–	–	–	–	–	–	–	–	X	–
N.M.	11,302	X	X	–	–	X	–	X	–	X	X	–	X	–	–
Utah	5,764	X	X	X	–	X	–	–	–	–	–	–	–	X	Cold agglutination
Wyo.	9,024	–	X	–	–	–	–	–	–	–	–	–	X	–	–
Pacific	**107,551**														
Alaska	13,808	X	X	–	–	X	–	X	–	–	–	–	X	X	–
Cal.	12,421	X	X	X	X	X	X	X	X	X	X	–	–	–	Anticomplement FA
Hawaii	19,718	X	X	X	–	X	–	X	–	–	–	–	–	X	–
Ore.	55,030	X	X	X	–	X	X	–	–	–	–	X	X	X	–
Wash.	6,574	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Territories	**7,331**														
Guam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	7,331	–	X	–	–	–	–	–	–	–	–	–	–	X	–
V.I.	–	–	–	–	–	–	–	–	–	X	X	–	–	–	–

Table 4-26
V. IMMUNOLOGY
F. Other Serology Specimens

Lab	Number of Specimens	Disease Entity – Procedures Used
Total	**8,992**	
Conn.	230	Legionnaires' – IFA; *B. pertussis* – agglutination
Md.	937	Gammopathies – electrophoresis and immunoelectrophoresis; carcinoembryonic antigen – RIA; asbestos – electron microscopy; complement – gel diffusion
Mass.	513	Rubella – single radial hemolysis, Legionnaires' disease.
Nev.	246	–
N.J.	1,013	Legionnaires' disease – IFA
Pa.	1,110	Legionnaires' disease – IFA
S.C.	47	Fungal disease – exoantigen immunodiffusion.
Wisc.	4,896	Autoimmune – RA-latex, ANA-FA, thyroid-latex

Table 4-27
VI. HEMATOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB–CATEGORY

Lab & Region	Total Hematology Specimens	A	B	C
		Hematology Specimens	Immunohematology Specimens	Hemoglobinopathy Specimens
Total	**1,271,961**	**559,313**	**207,072**	**505,576**
Average	36,342	27,966	8,283	20,223
New England	16,727	7,322	679	8,726
Conn.	15,002	6,903	–	8,099
Mass.	–	–	–	–
Me.	–	–	–	–
N.H.	–	–	–	–
R.I.	1,725	419	679	627
Vt.	–	–	–	–
Middle Atlantic	**617**	**496**	**100**	**21**
N.J.	–	–	–	–
N.Y.	–	–	–	–
Pa.	617	496	100	21
East North Central	**48,520**	**13,935**	**30,882**	**3,703**
Ill.	–	–	–	–
Ind.	–	–	–	–
Mich.	15,226	13,782	1,444	–
Ohio	3,488	–	96	3,392
Wisc.	29,806	153	29,342	311
West North Central	**19,472**	**–**	**12,564**	**6,908**
Ia.	–	–	–	–
Kans.	–	–	–	–
Minn.	–	–	–	–
Mo.	6,908	–	–	6,908
Nebr.	–	–	–	–
N.D.	12,564	–	12,564	–
S.D.	–	–	–	–
South Atlantic	**538,073**	**226,754**	**71,549**	**239,770**
Del.	2,080	–	–	2,080
D.C.	56,105	43,722	1,828	10,555
Fla.	152,819	66,782	20,316	65,721
Ga.	51,513	–	15,619	35,894
Md.	99,664	55,186	17,691	26,787
N.C.	56,349	2,005	–	54,344
S.C.	85,550	58,765	6,844	19,941
Va.	33,168	–	9,251	23,917
W.Va.	825	294	–	531
East South Central	**254,422**	**112,522**	**35,026**	**106,874**
Ala.	70,740	–	10,360	60,380
Ky.	17,951	3,950	7,603	6,398
Miss.	163,865	108,572	15,197	40,096
Tenn.	1,866	–	1,866	–
West South Central	**311,866**	**167,544**	**18,278**	**126,044**
Ark.	–	–	–	–
La.	–	–	–	–
Okla.	8,531	1,438	3,096	3,997
Tex.	303,355	166,106	15,182	122,047
Mountain	**37,183**	**6,237**	**21,128**	**9,818**
Ariz.	8,343	–	–	8,343
Colo.	18,956	–	18,956	–
Ida.	5,785	5,785	–	–
Mont.	–	–	–	–
Nev.	1,339	452	719	168
N.M.	2,760	–	,453	1,307
Utah	–	–	–	–
Wyo.	–	–	–	–
Pacific	**7,960**	**90**	**4,784**	**3,086**
Alaska	4,062	–	4,062	–
Cal.	90	90	–	–
Hawaii	722	–	722	–
Ore.	–	–	–	–
Wash.	3,086	–	–	3,086
Territories	**37,121**	**24,413**	**12,082**	**626**
Guam	4,819	4,446	373	–
P.R.	31,676	19,967	11,709	–
V.I.	626	–	–	626

Table 4-28
VI. HEMATOLOGY
A. Hematology Specimens

Lab & Region	Number of Specimens	Hematocrit	Hemoglobin	Cell Count	Sed. Rate	Reticulocyte Count	Differential	Prothrombin Time	Platelet Count	Other
Total	**559,313**									
Average	27,966									
New England	**7,322**									
Conn.	6,903	X	X	X	X	X	X	X	–	–
Mass.	–	–	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–	–
R.I.	419	X	X	X	–	–	X	–	–	–
Vt.	–	–	–	–	–	–	–	–	–	–
Middle Atlantic	**496**									
N.J.	–	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	496	X	X	X	X	–	X	X	X	–
East North Central	**13,935**									
Ill.	–	–	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–	–
Mich.	13,782	X	X	X	X	X	X	X	X	–
Ohio	–	–	–	–	–	–	–	–	–	–
Wisc.	153	X	X	X	X	X	X	–	X	LE smear examination, nasal smear examination for eosinophilia
West North Central	**–**									
Ia.	–	–	–	–	–	–	–	–	–	–
Kans.	–	–	–	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–
South Atlantic	**226,754**									
Del.	–	–	–	–	–	–	–	–	–	–
D.C.	43,722	X	X	X	–	–	–	–	–	–
Fla.	66,782	X	X	–	–	–	–	–	–	–
Ga.	–	–	–	–	–	–	–	–	–	–
Md.	55,186	X	X	X	X	–	X	–	X	L.E. prep., eosinophile count
N.C.	2,005	X	X	X	–	–	X	–	–	–
S.C.	58,765	X	X	X	X	X	X	X	–	Bleeding time
Va.	–	–	–	–	–	–	–	–	–	–
W.Va.	294	X	X	X	X	–	X	–	–	–
East South Central	**112,522**									
Ala.	–	–	–	–	–	–	–	–	–	–
Ky.	3,950	X	X	X	–	–	X	–	–	–
Miss.	108,572	X	X	X	–	–	–	–	–	MCV, MCH, MCHC
Tenn.	–	–	–	–	–	–	–	–	–	–
West South Central	**167,544**									
Ark.	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–
Okla.	1,438	X	–	X	–	–	–	–	–	–
Tex.	166,106	X	X	X	X	–	–	–	–	–
Mountain	**6,237**									
Ariz.	–	–	–	–	–	–	–	–	–	–
Colo.	–	–	–	–	–	–	–	–	–	–
Ida.	5,785	X	–	–	X	–	–	–	–	–
Mont.	–	–	–	–	–	–	–	–	–	–
Nev.	452	X	X	X	–	–	X	–	X	–
N.M.	–	–	–	–	–	–	–	–	–	–
Utah	–	–	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–
Pacific	**90**									
Alaska	–	–	–	–	–	–	–	–	–	–
Cal.	90	X	X	X	–	–	X	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–	–	–	–
Territories	**24,413**									
Guam	4,446	X	X	X	X	–	X	–	X	–
P.R.	19,967	X	X	X	X	X	X	–	X	Fibrinogen levels
V.I.	–	–	–	–	–	–	–	–	–	–

Table 4-29
VI. HEMATOLOGY
B. Immunohematology Specimens

Lab & Region	Number of Specimens	Blood Grouping	Blood Typing	Antibody Test	Other Test
Total	**207,072**				
Average	8,283				
New England	**679**				
Conn.	–	–	–	–	–
Mass.	–	–	–	–	–
Me.	–	–	–	–	–
N.H.	–	–	–	–	–
R.I.	679	X	–	X	–
Vt.	–	–	–	–	–
Middle Atlantic	**100**				
N.J.	–	–	–	–	–
N.Y.	–	–	–	–	–
Pa.	100	X	X	X	Coombs' test
East North Central	**30,882**				
Ill.	–	–	–	–	–
Ind.	–	–	–	–	–
Mich.	1,444	X	X	–	–
Ohio	96	X	X	–	–
Wisc.	29,342	X	X	X	–
West North Central	**12,564**				
Ia.	–	–	–	–	–
Kans.	–	–	–	–	–
Minn.	–	–	–	–	–
Mo.	–	–	–	–	–
Nebr.	–	–	–	–	–
N.D.	12,564	X	X	–	–
S.D.	–	–	–	–	–
South Atlantic	**71,549**				
Del.	–	–	–	–	–
D.C.	1,828	X	–	X	–
Fla.	20,316	–	X	–	–
Ga.	15,619	–	X	X	–
Md.	17,691	X	X	X	–
N.C.	–	–	–	–	–
S.C.	6,844	X	X	–	–
Va.	9,251	X	X	X	Du antigen
W.Va.	–	–	–	–	–
East South Central	**35,026**				
Ala.	10,360	–	X	X	Search, cyte screen
Ky.	7,603	X	X	X	–
Miss.	15,197	X	X	X	Indirect Coombs (identification, titration)
Tenn.	1,866	X	X	X	–
West South Central	**18,278**				
Ark.	–	–	–	–	–
La.	–	–	–	–	–
Okla.	3,096	X	X	–	–
Tex.	15,182	X	X	X	Asto, CRP, Coombs, mononucleosis
Mountain	**21,128**				
Ariz.	–	–	–	–	–
Colo.	18,956	–	–	X	–
Ida.	–	–	–	–	–
Mont.	–	–	–	–	–
Nev.	719	X	X	–	–
N.M.	1,453	X	X	X	–
Utah	–	–	–	–	–
Wyo.	–	–	–	–	–
Pacific	**4,784**				
Alaska	4,062	X	X	–	–
Cal.	–	–	–	–	–
Hawaii	722	X	X	–	–
Ore.	–	–	–	–	–
Wash.	–	–	–	–	–
Territories	**12,082**				
Guam	373	X	X	–	–
P.R.	11,709	X	X	X	Indirect Coombs, direct Coombs
V.I.		–	–	–	–

Table 4-30
VI. HEMATOLOGY
C. Hemoglobinopathy Specimens

Lab & Region	Number of Specimens	Procedures Used						
		Hemoglobin Cellulose Acetate Electro.	Citrate Agar Electrophoresis	Solubility Testing	Fetal Hemoglobin Assay	Hemoglobin A_2 Quantitation	Densitometry	Other
Total	**505,558**							
Average	20,222							
New England	**8,726**							
Conn.	8,099	X	X	X	X	X	–	–
Mass.	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–
R.I.	627	X	–	X	X	X	X	–
Vt.	–	–	–	–	–	–	–	–
Middle Atlantic	**21**							
N.J.	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–
Pa.	21	X	X	X	–	X	–	–
East North Central	**3,703**							
Ill.	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–
Ohio	3,392	X	X	X	–	–	–	–
Wisc.	311	X	–	X	–	–	–	–
West North Central	**6,908**							
Ia.	–	–	–	–	–	–	–	–
Kans.	–	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–
Mo.	6,908	X	–	X	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–
South Atlantic	**239,752**							
Del.	2,080	X	–	–	–	–	X	–
D.C.	10,555	X	–	X	–	–	–	–
Fla.	65,721	X	X	X	X	X	–	–
Ga.	35,894	X	X	X	–	–	–	–
Md.	26,787	X	X	X	X	X	X	–
N.C.	54,344	X	X	X	X	X	X	–
S.C.	19,941	X	X	X	–	–	–	–
Va.	23,917	X	–	X	–	–	–	–
W.Va.	513	X	X	X	–	–	–	–
East South Central	**106,874**							
Ala.	60,380	X	X	–	–	–	–	Globin chains electrophoresis
Ky.	6,398	X	X	X	X	X	X	–
Miss.	40,096	X	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–
West South Central	**126,044**							
Ark.	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–
Okla.	3,997	X	X	X	–	–	–	–
Tex.	122,047	X	X	–	–	–	X	–
Mountain	**9,818**							
Ariz.	8,343	X	X	–	–	–	X	–
Colo.	–	–	–	–	–	–	–	–
Ida.	–	–	–	–	–	–	–	–
Mont.	–	–	–	–	–	–	–	–
Nev.	168	–	–	X	–	–	–	–
N.M.	1,307	X	–	X	–	–	–	–
Utah	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–
Pacific	**3,086**							
Alaska	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–
Wash.	3,086	X	X	X	–	–	–	–
Territories	**626**							
Guam	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–
V.I.	626	X	–	–	–	–	X	–

Table 4-31
VII. CLINICAL CHEMISTRY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Clinical Chemistry Specimens	A	B	C	D	E
		Clinical Chemistry Specimens	Urinalysis Specimens	Inborn Errors of Metabolism	Multiphasic Screening	Other Clinical Chemistry
Total	**3,459,804**	**576,596**	**209,132**	**2,379,873**	**221,192**	**73,011**
Average	78,632	22,177	11,007	61,022	24,577	10,430
New England	**448,484**	**7,418**	**2,050**	**371,077**	**12,065**	**55,874**
Conn.	120,579	6,083	2,049	103,618	8,829	–
Mass.	265,101	–	–	209,257	–	55,844
Me.	16,625	–	–	16,625	–	–
N.H.	21,566	–	–	18,330	3,236	–
R.I.	24,613	1,335	1	23,247	–	30
Vt.	–	–	–	–	–	–
Middle Atlantic	**162,020**	**1,470**	**39**	**160,511**	**–**	**–**
N.J.	93,096	450	–	92,646	–	–
N.Y.	–	–	–	–	–	–
Pa.	68,924	1,020	39	67,865	–	–
East North Central	**417,732**	**64,476**	**9,005**	**327,380**	**16,871**	**–**
Ill.	–	–	–	–	–	–
Ind.	–	–	–	–	–	–
Mich.	177,820	21,442	9,005	147,373	–	–
Ohio	181,054	–	–	171,429	9,625	–
Wisc.	58,858	43,034	–	8,578	7,246	–
West North Central	**210,770**	**16,342**	**–**	**194,428**	**–**	**–**
Ia.	5,741	–	–	5,741	–	–
Kans.	48,571	–	–	48,571	–	–
Minn.	75,156	–	–	75,156	–	–
Mo.	60,405	16,342	–	44,063	–	–
Nebr.	2,946	–	–	2,946	–	–
N.D.	17,951	–	–	17,951	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**1,091,318**	**265,577**	**111,936**	**529,794**	**183,433**	**578**
Del.	16,344	–	387	15,957	–	–
D.C.	46,152	2,855	32,772	10,525	–	–
Fla.	271,536	60,224	872	81,591	128,849	–
Ga.	90,200	13,268	–	76,932	–	–
Md.	185,753	53,777	30,845	101,131	–	–
N.C.	230,522	104,968	126	85,425	40,003	–
S.C.	128,155	3,152	46,611	69,568	8,824	–
Va.	80,505	19,200	–	60,727	–	578
W.Va.	42,151	8,133	323	27,938	5,757	–
East South Central	**315,969**	**103,709**	**1,131**	**193,483**	**8,823**	**8,823**
Ala.	116,510	22,820	–	93,690	–	–
Ky.	47,660	2,274	1,131	44,255	–	–
Miss.	96,261	78,615	–	–	8,823	8,823
Tenn.	55,538	–	–	55,538	–	–
West South Central	**433,797**	**73,605**	**74,153**	**285,707**	**–**	**332**
Ark.	–	–	–	–	–	–
La.	51,352	–	–	51,352	–	–
Okla.	46,926	2,007	1,948	42,971	–	–
Tex.	335,519	71,598	72,205	191,384	–	332
Mountain	**70,906**	**141**	**7,201**	**63,564**	**–**	**–**
Ariz.	–	–	–	–	–	–
Colo.	25,910	–	–	25,910	–	–
Ida.	6,253	–	6,122	131	–	–
Mont.	–	–	–	–	–	–
Nev.	16,208	–	1,079	15,129	–	–
N.M.	22,485	91	–	22,394	–	–
Utah	50	50	–	–	–	–
Wyo.	–	–	–	–	–	–
Pacific	**261,689**	**465**	**68**	**253,800**	**–**	**7,356**
Alaska	–	–	–	–	–	–
Cal.	693	465	68	160	–	–
Hawaii	7,356	–	–	–	–	7,356
Ore.	176,866	–	–	176,866	–	–
Wash.	76,774	–	–	76,774	–	–
Territories	**47,119**	**43,393**	**3,549**	**129**	**–**	**48**
Guam	3,848	400	3,448	–	–	–
P.R.	41,676	41,575	101	–	–	–
V.I.	1,595	1,418	–	129	–	48

Table 4-32
VII. CLINICAL CHEMISTRY
A. Clinical Chemistry Specimens

Lab	Number of Specimens	Types of Tests																						Other
		Glucose	Cholesterol	BUN	Uric Acid	Transaminases	Alkaline Phos.	Total Protein	Serum Iron	Iron Binding Capacity	Triglycerides	Lactic Acid	Bilirubin	T_4, T_3, T_3 Uptake	Sodium	Potassium	Phosphorous	Calcium	Creatinine	Acid Phosphatase	Albumin	Chloride	LDH	
Total	**576,596**																							
Average	22,177																							
Ala.	22,820	X	–	–	–	–	–	X	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–
Cal.	465	X	X	X	X	X	–	X	–	–	–	–	X	–	X	X	–	X	X	–	–	X	–	–
Conn.	6,083	X	X	X	X	X	X	X	X	X	X	–	X	–	X	X	X	X	X	–	X	X	X	Amylase, HDL – cholesterol
D.C.	2,855	X	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Fla.	60,224	X	X	X	X	X	–	–	–	–	X	–	X	–	–	–	–	–	–	–	–	–	–	Cholinesterase
Ga.	13,268	X	X	–	–	–	–	–	–	–	X	–	–	–	X	X	–	–	X	–	–	–	–	–
Guam	400	X	X	X	X	X	–	X	–	–	–	–	X	–	–	–	–	–	X	–	X	–	X	Serum acetone
Ky.	2,274	X	X	X	X	X	X	–	–	X	–	X	X	X	X	X	X	X	–	X	–	X	–	SGOT, HBDH, lithium, SGPT, GGTP, amyl, CPK
Md.	53,777	X	X	X	X	X	X	X	X	X	X	–	X	–	X	X	X	X	X	X	X	X	X	–
Mich.	21,442	X	X	X	X	X	X	X	–	–	–	–	X	–	X	X	X	X	X	X	–	X	X	–
Miss.	78,615	X	X	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	16,342	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.J.	450	X	–	–	–	X	X	X	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–
N.M.	91	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Cholinesterase
N.C.	104,968	X	–	–	–	–	–	–	X	X	X	–	–	X	–	–	–	–	–	–	–	–	–	–
Okla.	2,007	X	–	X	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	1,020	X	X	X	X	X	X	X	X	–	X	–	X	–	X	X	X	X	X	–	X	X	X	Magnesium, lithium, free glycerol
P.R.	41,575	X	X	X	X	X	X	X	–	–	X	–	X	X	X	X	X	X	X	X	X	X	X	Cholinesterase, amylase, Hanger, thymol, 17-ketosteroids, lithium levels.
R.I.	1,335	X	X	X	–	X	–	–	–	–	X	X	X	–	X	X	–	–	X	–	–	X	–	Magnesium
S.C.	3,152	X	X	X	X	X	X	X	–	–	–	–	X	–	X	X	X	X	X	–	X	X	–	CO_2
Tex.	71,598	X	–	X	X	X	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–
Utah	50		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Cholinesterase
Va.	19,200	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	1,418	X	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–
W.Va.	8,133	X	X	X	X	X	X	X	–	–	X	–	X	–	X	X	X	X	X	–	X	–	X	–
Wisc.	43,034	X	X	X	X	X	X	X	X	X	X	–	X	X	X	X	X	X	X	–	X	X	X	Steroids: 17-OH, 17-KS, 17-KGS, UMA, 5-HIAA, digoxin, lithium, TSH renal calculi (stones); electrophoresis (LP and SP)

Table 4-33
VII. CLINICAL CHEMISTRY
B. Urinalysis Specimens

Lab & Region	Number of Specimens	Procedures Used			
		Routine	Microscopic	Pregnancy Test	Other
Total	**209,132**				
Average	11,007				
New England	**2,050**				
Conn.	2,049	X	X	–	–
Mass.	–	–	–	–	–
Me.	–	–	–	–	–
N.H.	–	–	–	–	–
R.I.	1	X	X	–	–
Vt.	–	–	–	–	–
Middle Atlantic	**39**				
N.J.	–	–	–	–	–
N.Y.	–	–	–	–	–
Pa.	39	X	X	X	–
East North Central	**9,005**				
Ill.	–	–	–	–	–
Ind.	–	–	–	–	–
Mich.	9,005	X	X	–	–
Ohio	–	–	–	–	–
Wisc.	–	–	–	–	–
West North Central	**–**				
Ia.	–	–	–	–	–
Kans.	–	–	–	–	–
Minn.	–	–	–	–	–
Mo.	–	–	–	–	–
Nebr.	–	–	–	–	–
N.D.	–	–	–	–	–
S.D.	–	–	–	–	–
South Atlantic	**111,936**				
Del.	387	X	X	–	–
D.C.	32,772	X	X	X	–
Fla.	872	X	–	X	–
Ga.	–	–	–	–	–
Md.	30,845	X	X	X	–
N.C.	126	X	X	–	–
S.C.	46,611	X	X	X	–
Va.	–	–	–	–	–
W.Va.	323	X	X	–	–
East South Central	**1,131**				
Ala.	–	–	–	–	–
Ky.	1,131	X	X	X	–
Miss.	–	–	–	–	–
Tenn.	–	–	–	–	–
West South Central	**74,153**				
Ark.	–	–	–	–	–
La.	–	–	–	–	–
Okla.	1,948	X	X	X	–
Tex.	72,205	X	X	–	–
Mountain	**7,201**				
Ariz.	–	–	–	–	–
Colo.	–	–	–	–	–
Ida.	6,122	–	–	X	TB drug analysis
Mont.	–	–	–	–	–
Nev.	1,079	X	X	–	–
N.M.	–	–	–	–	–
Utah	–	–	–	–	–
Wyo.	–	–	–	–	–
Pacific	**68**				
Alaska	–	–	–	–	–
Cal.	68	X	–	X	–
Hawaii	–	–	–	–	–
Ore.	–	–	–	–	–
Wash.	–	–	–	–	–
Territories	**3,549**				
Guam	3,448	X	X	X	Acetone, bile
P.R.	101	–	–	–	Total protein
V.I.	–	–	–	–	–

Table 4-34
VII. CLINICAL CHEMISTRY
C. Inborn Errors of Metabolism Specimens

Lab & Region	Number of Specimens	Inborn Error Assays								
		PKU	Tyrosinemia	Galactosemia	MSUD	Hyperthyroidism	Amino Acid Chromatography	Homocystinuria	Maternal PKU	Other
Total	**2,379,873**									
Average	61,022									
New England	**371,077**									
Conn.	103,618	X	X	X	–	X	X	–	–	Tay-Sachs
Mass.	209,257	X	–	X	X	X	–	X	X	Maternal homocystinuria, Maternal histidinemia
Me.	16,625	X	X	X	X	X	–	X	X	–
N.H.	18,330	X	–	–	–	–	–	–	–	–
R.I.	23,247	X	X	X	–	–	X	X	–	–
Vt.	–	–	–	–	–	–	–	–	–	–
Middle Atlantic	**160,511**									
N.J.	92,646	X	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	67,865	X	–	–	–	–	–	–	–	–
East North Central	**327,380**									
Ill.	–	–	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–	–
Mich.	147,373	X	–	–	–	X	–	–	–	–
Ohio	171,429	X	–	X	–	X	–	X	X	–
Wisc.	8,578	X	–	X	X	X	–	–	–	–
West North Central	**194,428**									
Ia.	5,741	X	–	–	–	–	–	–	–	–
Kans.	48,571	X	–	–	–	X	–	–	X	–
Minn.	75,156	X	–	X	–	X	–	–	–	–
Mo.	44,063	X	–	–	–	–	–	–	–	–
Nebr.	2,946	X	–	–	–	–	–	–	–	–
N.D.	17,951	X	–	–	–	X	–	–	–	TSH on low T-4
S.D.	–	–	–	–	–	–	–	–	–	–
South Atlantic	**529,794**									
Del.	15,957	X	–	–	–	–	–	–	–	–
D.C.	10,525	–	–	–	–	–	–	–	–	Sickle cell
Fla.	81,591	X	–	–	–	–	–	–	–	–
Ga.	76,932	X	–	X	X	–	–	X	–	–
Md.	101,131	X	X	–	X	X	–	X	X	–
N.C.	85,425	X	X	–	–	–	–	–	–	–
S.C.	69,568	X	–	–	–	X	–	–	–	–
Va.	60,727	X	–	–	–	X	–	–	–	–
W.Va.	27,938	X	–	–	–	X	X	–	X	Amino acid disorders
East South Central	**193,483**									
Ala.	93,690	X	–	–	–	X	X	–	X	–
Ky.	44,255	X	–	X	–	–	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–	–
Tenn.	55,538	X	–	–	–	–	–	–	–	–
West South Central	**285,707**									
Ark.	–	–	–	–	–	–	–	–	–	–
La.	51,352	X	–	–	–	–	–	–	–	Hemoglobin electrophoresis
Okla.	42,971	X	X	–	–	–	–	–	–	–
Tex.	191,384	X	–	–	–	–	–	–	–	–
Mountain	**63,564**									
Ariz.	–	–	–	–	–	–	–	–	–	–
Colo.	25,910	X	–	–	–	–	–	–	–	–
Ida.	131*	X	–	–	–	–	–	–	–	–
Mont.	–*	–	–	–	–	–	–	–	–	–
Nev.	15,129	X	–	–	–	–	–	–	–	–
N.M.	22,394	X	–	–	–	–	–	–	–	–
Utah	–	–	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–
Pacific	**253,800**									
Alaska	–*	–	–	–	–	–	–	–	–	–
Cal.	160	X	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–
Ore.	176,866*	X	X	X	X	X	X	X	X	–
Wash.	76,774	X	–	–	–	X	–	–	–	–
Territories	**129**									
Guam	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–
V.I.	129	X	–	–	–	–	–	–	X	–

*Oregon State Laboratory serves as regional metabolic testing center for the states of Alaska, Idaho, and Montana.

Table 4-35
VII. CLINICAL CHEMISTRY
D. Multiphasic Screening Specimens

Lab & Region	Number of Specimens	Procedures Used				
		Single or Discrete Analyz.	2 Channel Anal.	3-6 Channel Anal.	7-12 Channel Anal.	Other-Multichannel Analyzers
Total	**221,192**					
Average	24,577					
New England	**12,065**					
Conn.	8,829	X	X	X	–	–
Mass.	–	–	–	–	–	–
Me.	–	–	–	–	–	–
N.H.	3,236	X	–	–	–	–
R.I.	–	–	–	–	–	–
Vt.	–	–	–	–	–	–
Middle Atlantic	–					
N.J.	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	–
East North Central	**16,871**					
Ill.	–	–	–	–	–	–
Ind.	–	–	–	–	–	–
Mich.	–	–	–	–	–	–
Ohio	9,625	X	–	–	X	–
Wisc.	7,246	X	–	–	–	Ortho instruments "BASIC" (no longer used)
West North Central	–					
Ia.	–	–	–	–	–	–
Kans.	–	–	–	–	–	–
Minn.	–	–	–	–	–	–
Mo.	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–
N.D.	–	–	–	–	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**183,433**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	128,849	–	X	–	–	–
Ga.	–	–	–	–	–	–
Md.	–	–	–	–	–	–
N.C.	40,003	–	–	X	X	–
S.C.	8,824	X	–	–	–	–
Va.	–	–	–	–	–	–
W.Va.	5,757	–	–	–	X	–
East South Central	**8,823**					
Ala.	–	–	–	–	–	–
Ky.	–	–	–	–	–	–
Miss.	8,823	–	–	X	–	–
Tenn.	–	–	–	–	–	–
West South Central	–					
Ark.	–	–	–	–	–	–
La.	–	–	–	–	–	–
Okla.	–	–	–	–	–	–
Tex.	–	–	–	–	–	–
Mountain	–					
Ariz.	–	–	–	–	–	–
Colo.	–	–	–	–	–	–
Ida.	–	–	–	–	–	–
Mont.	–	–	–	–	–	–
Nev.	–	–	–	–	–	–
N.M.	–	–	–	–	–	–
Utah	–	–	–	–	–	–
Wy.	–	–	–	–	–	–
Pacific	–					
Alaska	–	–	–	–	–	–
Cal.	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–
Ore.	–	–	–	–	–	–
Wash.	–	–	–	–	–	–
Territories	–					
Guam	–	–	–	–	–	–
P.R.	–	–	–	–	–	–
V.I.	–	–	–	–	–	–

Table 4-36
VII. CLINICAL CHEMISTRY
E. Other Specimens

Lab	Number of Specimens	Type – Procedures Used
Total	**73,011**	
Hawaii	7,356	Stool – occult blood; urine – INH screen.
Mass.	55,844	Urine (filter paper) – paper chromatography.
Miss.	8,823	Electrolytes – flame photometer and chloride meter
R.I.	30	Heart muscle – transaminase
Tex.	332	Hypertension – 3-6 channel analyzer.
Va.	578	Plasma – fluorometric quantitation of phenylalanine and tyrosine.
V.I.	48	24-hour urinary estriol – colorimetric methods.

Table 4-37
VIII. PATHOLOGY

Lab & Region	Total Pathology Specimens	Exfoliative Cytology Specimens	Cytogenetic Specimens	Other Pathology Specimens	
				Number of Specimens	Types
Total	**531,361**	**516,214**	**1,671**	**13,476**	
Average	48,306				
New England	**2,038**	**2,038**			
Conn.	2,038	2,038	–	–	–
Mass.	–	–	–	–	–
Me.	–	–	–	–	–
N.H.	–	–	–	–	–
R.I.	–	–	–	–	–
Vt.	–	–	–	–	–
Middle Atlantic	**14**			**14**	
N.J.	14	–	–	14	Encephalitis specimens
N.Y.	–	–	–	–	–
Pa.	–	–	–	–	–
East North Central	**115,883**	**101,203**	**1,229**	**13,451**	
Ill.	–	–	–	–	–
Ind.	–	–	–	–	–
Mich.	–	–	–	–	–
Ohio	–	–	–	–	–
Wisc.	115,883	101,203	1,229	13,451	Surgical pathology
West North Central	**210**		**210**		
Ia.	–	–	–	–	–
Kans.	–	–	–	–	–
Minn.	210	–	210	–	–
Mo.	–	–	–	–	–
Nebr.	–	–	–	–	–
N.D.	–	–	–	–	–
S.D.	–	–	–	–	–
South Atlantic	**397,634**	**397,634**			
Del.	45,401	45,401	–	–	–
D.C.	17,649	17,649	–	–	–
Fla.	–	–	–	–	–
Ga.	–	–	–	–	–
Md.	76,674	76,674	–	–	–
N.C.	216,256	216,256	–	–	–
S.C.	–	–	–	–	–
Va.	–	–	–	–	–
W.Va.	41,654	41,654	–	–	–
East South Central	**14,434**	**14,434**			
Ala.	14,434	14,434	–	–	–
Ky.	–	–	–	–	–
Miss.	–	–	–	–	–
Tenn.	–	–	–	–	–
West South Central					
Ark.	–	–	–	–	–
La.	–	–	–	–	–
Okla.	–	–	–	–	–
Tex.	–	–	–	–	–
Mountain	**1,148**	**905**	**232**	**11**	
Ariz.	–	–	–	–	–
Colo.	–	–	–	–	–
Ida.	1,148	905	232	11	Buccal
Mont.	–	–	–	–	–
Nev.	–	–	–	–	–
N.M.	–	–	–	–	–
Utah	–	–	–	–	–
Wyo.	–	–	–	–	–
Pacific					
Alaska	–	–	–	–	–
Cal.	–	–	–	–	–
Hawaii	–	–	–	–	–
Ore.	–	–	–	–	–
Wash.	–	–	–	–	–
Territories					
Guam	–	–	–	–	–
P.R.	–	–	–	–	–
V.I.	–	–	–	–	–

Table 4-38
IX. ENVIRONMENTAL MICROBIOLOGY
SUMMARY OF SAMPLES BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Environmental Microbiology	A	B	C	D
		Water Samples	Dairy Product Samples	Food and Beverage Samples	Other Micro. Samples
Total	**2,433,493**	**1,978,594**	**396,023**	**56,120**	**2,756**
Average	48,670	43,013	11,001	1,220	251
New England	**91,701**	**62,222**	**23,255**	**5,768**	**456**
Conn.	25,278	12,556	11,951	745	26
Mass.	86	–	–	86	–
Me.	21,013	20,870	–	–	143
N.H.	–	–	–	–	–
R.I.	21,751	5,415	11,304	4,745	287
Vt.	23,573	23,381	–	192	–
Middle Atlantic	**14,490**	**11,589**	**2,294**	**574**	**33**
N.J.	14,358	11,589	2,294	456	19
N.Y.	–	–	–	–	–
Pa.	132	–	–	118	14
East North Central	**350,901**	**312,141**	**29,250**	**9,024**	**486**
Ill.	61,390	41,224	15,878	4,288	–
Ind.	59,016	49,385	6,968	2,177	486
Mich.	93,486	85,661	6,351	1,474	–
Ohio	72,859	72,406	53	400	–
Wisc.	64,150	63,465	–	685	–
West North Central	**227,928**	**211,474**	**11,168**	**5,286**	**–**
Ia.	40,608	39,449	1,106	53	–
Kans.	47,714	47,621	–	93	–
Minn.	–	–	–	–	–
Mo.	74,301	68,854	1,632	3,815	–
Nebr.	25,355	25,355	–	–	–
N.D.	19,749	10,009	8,430	1,310	–
S.D.	20,201	20,186	–	15	–
South Atlantic	**499,731**	**442,343**	**47,343**	**10,045**	**–**
Del.	12,640	11,102	1,141	397	–
D.C.	1,045	62	141	842	–
Fla.	236,753	225,014	8,731	3,008	–
Ga.	157	–	–	157	–
Md.	92,689	75,093	15,742	1,854	–
N.C.	58,916	58,602	–	314	–
S.C.	13,992	–	12,271	1,721	–
Va.	55,167	48,369	5,294	1,504	–
W.Va.	28,372	24,101	4,023	248	–
East South Central	**296,904**	**197,758**	**93,822**	**5,313**	**11**
Ala.	119,814	77,684	40,826	1,304	–
Ky.	36,781	27,759	8,885	137	–
Miss.	70,842	49,407	21,056	368	11
Tenn.	69,467	42,908	23,055	3,504	–
West South Central	**620,989**	**469,531**	**143,636**	**7,822**	**–**
Ark.	–	–	–	–	–
La.	134,340	73,221	60,867	252	–
Okla.	77,400	67,385	9,504	511	–
Tex.	409,249	328,925	73,265	7,059	–
Mountain	**215,171**	**175,345**	**34,926**	**4,900**	**–**
Ariz.	36,017	28,346	7,340	331	–
Colo.	38,779	33,545	4,791	443	–
Ida.	45,557	27,242	16,122	2,193	–
Mont.	11,978	11,711	–	267	–
Nev.	9,024	5,234	3,479	311	–
N.M.	27,437	23,912	2,860	665	–
Utah	36,159	35,135	334	690	–
Wyo.	10,220	10,220	–	–	–
Pacific	**90,673**	**83,922**	**3,259**	**1,801**	**1,691**
Alaska	12,738	12,682	2	54	–
Cal.	17,561	15,644	331	907	679
Hawaii	10,236	6,919	2,926	391	–
Ore.	40,798	40,695	–	39	64
Wash.	9,340	7,982	–	410	948
Territories	**25,005**	**12,269**	**7,070**	**5,587**	**79**
Guam	405	29	176	200	–
P.R.	16,838	6,962	4,410	5,387	79
V.I.	7,762	5,278	2,484	–	–

Table 4-39
IX. ENVIRONMENTAL MICROBIOLOGY
A. Water Samples

Lab & Region	Number of Samples	Type & Procedure											
		Potable			Non-Potable			Swimming Pools			Sewage & Waste		
		Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other
Total	**1,978,594**												
Average	43,013												
New England	**62,222**												
Conn.	12,556	X	X	X	X	X	X	X	X	X	X	X	–
Mass.	–	–	–	–	–	–	–	–	–	–	–	–	–
Me.	20,870	X	X	–	X	X	–	X	–	–	X	X	–
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	5,415	–	X	–	–	X	–	–	X	X	–	X	–
Vt.	23,381	X	–	–	–	–	–	X	–	–	–	–	–
Middle Atlantic	**11,589**												
N.J.	11,589	X	–	–	–	X	–	X	–	–	–	X	–
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–	–	–	–	–
East North Central	**312,141**												
Ill.	41,224	X	X	–	X	X	–	X	X	–	X	X	–
Ind.	49,385	X	X	–	X	–	–	–	X	X	X	X	–
Mich.	85,661	X	–	–	X	–	–	X	–	–	X	–	–
Ohio	72,406	X	X	–	X	X	–	X	–	–	X	X	–
Wisc.	63,465	X	X	–	X	X	–	–	X	–	X	X	–
West North Central	**211,474**												
Ia.	39,449	–	X	–	X	–	–	–	X	–	–	–	–
Kans.	47,621	X	–	–	X	–	–	X	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	68,854	X	–	–	X	X	X	X	–	–	–	–	–
Nebr.	25,355	X	–	–	–	–	–	–	–	–	–	–	–
N.D.	10,009	X	X	–	–	X	–	X	–	–	–	X	–
S.D.	20,186	X	X	–	X	X	–	–	X	–	X	–	–
South Atlantic	**442,343**												
Del.	11,102	X	X	–	–	X	–	X	–	–	–	–	–
D.C.	62	X	–	–	–	–	–	–	–	–	–	–	–
Fla.	225,014	X	X	–	–	X	–	X	–	–	–	X	–
Ga	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	75,093	X	–	–	–	X	–	–	X	–	X	–	–
N.C.	58,602	X	X	–	X	X	–	X	X	–	–	X	–
S.C.	–	–	–	–	–	–	–	–	–	–	–	–	–
Va.	48,369	X	X	–	X	X	–	X	X	–	X	X	–
W.Va.	24,101	X	X	–	X	X	–	–	X	–	X	X	–
East South Central	**197,758**												
Ala.	77,684	X	X	–	X	X	–	X	–	–	–	X	–
Ky.	27,759	X	X	X	–	X	X	–	X	–	–	–	–
Miss.	49,407	X	X	–	–	X	–	–	–	–	–	–	–
Tenn.	42,908	X	X	–	X	–	–	X	–	–	–	–	–
West South Central	**469,531**												
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	73,221	X	X	X	–	X	–	X	–	–	–	X	–
Okla.	67,385	X	–	–	X	–	–	X	–	–	X	–	–
Tex.	328,925	X	X	–	X	X	–	X	X	–	X	X	–
Mountain	**175,345**												
Ariz.	28,346	X	X	X	X	X	X	–	X	X	X	X	X
Colo.	33,545	X	X	–	X	X	–	–	X	–	–	X	–
Ida.	27,242	X	X	–	X	X	–	X	–	–	X	X	–
Mont.	11,711	–	X	–	X	X	–	–	–	–	X	X	–
Nev.	5,234	X	X	–	X	X	–	X	X	–	X	X	–
N.M.	23,912	–	–	–	X	X	–	X	X	–	–	X	–
Utah	35,135	X	X	–	X	X	–	X	X	–	–	X	–
Wyo.	10,220	X	–	–	–	–	–	X	–	–	–	–	–
Pacific	**83,922**												
Alaska	12,682	X	X	–	–	X	–	–	X	–	–	X	–
Cal.	15,644	X	X	X	–	X	X	–	X	X	–	X	X
Hawaii	6,919	X	X	X	X	X	X	–	–	–	X	X	–
Ore.	40,695	–	X	–	–	X	–	–	X	–	–	–	–
Wash.	7,982	X	X	–	–	X	–	–	X	–	–	X	–
Territories	**12,269**												
Guam	29	–	X	–	–	–	–	–	X	–	–	–	X
P.R.	6,962	X	X	X	–	X	–	–	X	–	–	–	–
V.I.	5,278	X	–	–	X	–	–	X	–	–	X	–	–

Table 4-40
IX. ENVIRONMENTAL MICROBIOLOGY
B. Dairy Product Samples

Lab & Region	Number of Samples	Types of Samples					Other
		Milk & Cream	Ice Cream	Cheese	Other Dairy Products	Frozen Desserts	
Total	**396,023**						
Average	11,001						
New England	**23,255**						
Conn.	11,951	X	X	X	X	X	Yogurt
Mass.	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—
R.I.	11,304	X	X	X	X	X	—
Vt.	—	—	—	—	—	—	—
Middle Atlantic	**2,294**						
N.J.	2,294	X	X	X	X	—	Milk containers, non-dairy creamers
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	**29,250**						
Ill.	15,878	X	X	X	X	X	—
Ind.	6,968	X	X	X	X	X	—
Mich.	6,351	X	—	—	—	—	—
Ohio	53	X	—	X	X	—	—
Wisc.	—	—	—	—	—	—	—
West North Central	**11,168**						
Ia.	1,106	X	—	—	X	—	—
Kans.	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	1,632	X	—	—	—	X	—
Nebr.	—	—	—	—	—	—	—
N.D.	8,430	X	X	X	X	X	—
S.D.	—	—	—	—	—	—	—
South Atlantic	**47,343**						
Del.	1,141	X	X	X	X	X	—
D.C.	141	X	X	—	—	X	—
Fla.	8,731	X	X	X	X	X	—
Ga.	—	—	—	—	—	—	—
Md.	15,742	X	X	X	X	X	—
N.C.	—	—	—	—	—	—	—
S.C.	12,271	X	X	—	X	X	—
Va.	5,294	X	X	—	X	X	Yogurt, milk shake, counter freezes, milk cartons
W.Va.	4,023	X	—	—	—	—	—
East South Central	**93,822**						
Ala.	40,826	X	X	—	X	X	Empty cartons
Ky.	8,885	X	X	X	X	X	—
Miss.	21,056	X	—	—	X	—	—
Tenn.	23,055	X	X	X	X	X	—
West South Central	**143,636**						
Ark.	—	—	—	—	—	—	—
La.	60,867	X	X	X	X	X	—
Okla.	9,504	X	—	—	—	—	—
Tex.	73,265	X	X	—	X	—	—
Mountain	**34,926**						
Ariz.	7,340	X	X	—	X	X	—
Colo.	4,791	X	X	X	X	X	—
Ida.	16,122	X	—	—	—	—	—
Mont.	—	—	—	—	—	—	—
Nev.	3,479	X	X	X	X	X	Novelty items
N.M.	2,860	X	X	X	X	X	—
Utah	334	—	X	—	—	X	—
Wyo.	—	—	—	—	—	—	—
Pacific	**3,259**						
Alaska	2	—	—	—	—	X	—
Cal.	331	X	—	—	—	—	—
Hawaii	2,926	X	X	X	X	X	—
Ore.	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—
Territories	**7,070**						
Guam	176	—	—	—	X	—	—
P.R.	4,410	X	X	—	X	X	—
V.I.	2,484	X	X	—	X	—	—

Table 4-41
IX. ENVIRONMENTAL MICROBIOLOGY

Lab & Region	C. Food and Beverage Samples Types					D. Other Samples	
	Number of Samples	Food Quality	Food-Associated Disease Outbreaks	Seafood	Environmental	Number of Samples	Other
Total	**56,120**					**2,756**	
Average	1,220					250	
New England	**5,768**					**456**	
Conn.	745	X	X	X	X	26	Bottled water, ice
Mass.	86	—	X	—	—	—	—
Me.	—	—	—	—	—	143	Toys-analysis of stuffing for sanitary quality.
N.H.	—	—	—	—	—	—	—
R.I.	4,745	X	X	X	X	287	P.S.P. (red tide)
Vt.	192	—	X	—	X	—	—
Middle Atlantic	**574**					**33**	
N.J.	456	X	X	—	—	19	APC on spring and bottled waters
N.Y.	—	—	—	—	—	—	
Pa.	118	—	X	—	X	14	Enteric pathogens, water, membrane filter, sera botulism detection, mouse neutralization
East North Central	**9,024**					**486**	
Ill.	4,288	X	X	X	X	—	—
Ind.	2,177	X	X	X	X	486	Meat products
Mich.	1,474	—	X	—	X	—	—
Ohio	400	X	X	—	X	—	—
Wisc.	685	—	X	—	X	—	—
West North Central	**5,286**						
Ia.	53	—	X	—	—	—	—
Kans.	93	X	X	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	3,815	X	X	—	X	—	—
Nebr.	—	—	—	—	—	—	—
N.D.	1,310	—	—	—	X	—	—
S.D.	15	—	X	—	—	—	—
South Atlantic	**10,045**						
Del.	397	X	X	X	—	—	—
D.C.	842	X	X	X	—	—	—
Fla.	3,008	X	X	X	X	—	—
Ga.	157	—	X	—	X	—	—
Md.	1,854	X	X	X	X	—	—
N.C.	314	—	X	X	—	—	—
S.C.	1,721	X	X	X	X	—	—
Va.	1,504	X	X	—	—	—	—
W.Va.	248	X	X	—	—	—	—
East South Central	**5,313**					**11**	
Ala.	1,304	—	X	X	X	—	—
Ky.	137	X	X	—	X	—	—
Miss.	368	—	X	X	X	11	Filth samples
Tenn.	3,504	—	X	—	X	—	—
West South Central	**7,822**						
Ark.	—	—	—	—	—	—	—
La.	252	X	X	X	X	—	—
Okla.	511	X	X	—	X	—	—
Tex.	7,059	X	X	X	X	—	—
Mountain	**4,900**						
Ariz.	331	X	X	—	—	—	—
Colo.	443	X	X	—	—	—	—
Ida.	2,193	X	X	—	X	—	—
Mont.	267	X	X	—	—	—	—
Nev.	311	—	X	—	—	—	—
N.M.	665	X	X	—	X	—	—
Utah	690	—	X	—	X	—	—
Wyo.	—	—	—	—	—	—	—
Pacific	**1,801**					**1,691**	
Alaska	54	X	X	—	X	—	—
Cal.	907	X	X	X	X	679	Shellfish (for paralytic shellfish poison), drug surveillance, HACCP Project
Hawaii	391	X	X	X	X	—	—
Ore.	39	—	X	X	—	64	Shellfish toxicity, shellfish bacteriology.
Wash.	410	—	X	X	X	948	Spore strips (monitoring autoclaving)
Territories	**5,587**					**79**	
Guam	200	X	X	X	X	—	—
P.R.	5,387	X	X	X	X	79	Stools, vomits, containers
V.I.	—	—	—	—	—	—	—

Table 4-42
X. ENVIRONMENTAL CHEMISTRY
SAMPLES BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Envir. Chem. Samples	A Water Samples	B Dairy Prod. and Food Samples	C Pesticide Samples	D Air Pollution Samples	E Radiological Samples	F Other Samples
Total	**709,296**	**404,210**	**105,626**	**22,286**	**146,600**	**27,035**	**3,539**
Average	16,888	10,637	3,772	768	6,664	1,229	272
New England	**86,126**	**37,878**	**20,397**	**1,159**	**24,928**	**1,762**	**2**
Conn.	25,232	13,790	4,926	96	5,628	792	–
Mass.	–	–	–	–	–	–	–
Me.	11,885	10,679	–	696	–	508	2
N.H.	–	–	–	–	–	–	–
R.I.	41,015	5,415	15,471	367	19,300	462	–
Vt.	7,994	7,994	–	–	–	–	–
Middle Atlantic	**17,798**	**10,719**	**2,483**	**3,847**	**749**	**–**	**–**
N.J.	17,798	10,719	2,483	3,847	749	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–
East North Central	**138,407**	**90,424**	**17,815**	**5,823**	**19,338**	**4,918**	**89**
Ill.	41,897	37,635	1,866	979	–	1,417	–
Ind.	24,714	11,940	9,598	3,176	–	–	–
Mich.	20,654	14,303	6,351	–	–	–	–
Ohio	21,842	9,210	–	791	9,538	2,214	89
Wisc.	29,300	17,336	–	877	9,800	1,287	–
West North Central	**90,921**	**68,411**	**1,524**	**1,124**	**14,881**	**4,811**	**170**
Ia.	25,278	20,106	–	333	3,250	1,589	–
Kans.	25,315	15,795	–	510	8,179	831	–
Minn.	–	–	–	–	–	–	–
Mo.	6,093	3,806	1,524	281	–	482	–
Nebr.	15,103	15,103	–	–	–	–	–
N.D.	9,401	5,272	–	–	2,220	1,909	–
S.D.	9,731	8,329	–	–	1,232	–	170
South Atlantic	**133,600**	**68,559**	**26,475**	**3,341**	**29,190**	**5,221**	**814**
Del.	4,064	4,064	–	–	–	–	–
D.C.	419	–	–	–	–	–	419
Fla.	4,897	4,362	104	23	365	–	43
Ga.	–	–	–	–	–	–	–
Md.	55,171	21,388	13,598	775	17,185	1,946	279
N.C.	17,508	15,422	–	811	–	1,275	–
S.C.	8,904	–	8,176	655	–	–	73
Va.	42,637	23,323	4,597	1,077	11,640	2,000	–
W.Va.	–	–	–	–	–	–	–
East South Central	**16,509**	**14,659**	**876**	**974**	**–**	**–**	**–**
Ala.	–	–	–	–	–	–	–
Ky.	13,506	11,656	876	974	–	–	–
Miss.	3,003	3,003	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–
West South Central	**41,792**	**15,045**	**17,546**	**1,195**	**4,072**	**3,144**	**790**
Ark.	–	–	–	–	–	–	–
La.	11,024	2,287	8,348	365	–	24	–
Okla.	5,165	–	5,165	–	–	–	–
Tex.	25,603	12,758	4,033	830	4,072	3,120	790
Mountain	**118,270**	**83,415**	**4,768**	**2,729**	**22,654**	**4,161**	**543**
Ariz.	5,022	1,108	536	1,466	1,912	–	–
Colo.	19,388	7,600	1,600	672	5,868	3,648	–
Ida.	52,199	49,362	–	358	2,396	83	–
Mont.	6,413	3,159	345	75	2,619	38	177
Nev.	8,665	3,906	2,262	45	2,452	–	–
N.M.	18,882	10,852	22	75	7,376	191	366
Utah	7,701	7,428	3	38	31	201	–
Wyo.	–	–	–	–	–	–	–
Pacific	**56,757**	**12,098**	**7,630**	**2,094**	**30,788**	**3,018**	**1,129**
Alaska	606	474	16	–	–	–	116
Cal.	21,603	9,463	5,028	385	3,419	2,295	1,013
Hawaii	31,070	1,025	2,577	99	27,369	–	–
Ore.	–	–	–	–	–	–	–
Wash.	3,478	1,136	9	1,610	–	723	–
Territories	**9,116**	**3,002**	**6,112**	**–**	**–**	**–**	**2**
Guam	6	–	4	–	–	–	2
P.R.	6,285	2,661	3,624	–	–	–	–
V.I.	2,825	341	2,484	–	–	–	–

Table 4-43
X. ENVIRONMENTAL CHEMISTRY

Lab & Region	A. Water Samples					B. Dairy Products and Food Samples		
	Number of Samples	Types				Number of Samples	Types	
		Potable	Non-Potable	Swimming Pools	Sewage & Waste		Milk & Cream	Foods
Total	**404,210**					**105,626**		
Average	10,637					3,772		
New England	**37,878**					**20,397**		
Conn.	13,790	X	X	X	X	4,926	X	X
Mass.	–	–	–	–	–	–	–	–
Me.	10,679	X	X	–	X	–	–	–
N.H.	–	–	–	–	–	–	–	–
R.I.	5,415	X	X	X	X	15,471	X	X
Vt.	7,994	X	–	–	–	–	–	–
Middle Atlantic	**10,719**					**2,483**		
N.J.	10,719	X	X	–	X	2,483	X	X
N.Y.	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–
East North Central	**90,424**					**17,815**		
Ill.	37,635	X	X	X	X	1,866	X	X
Ind.	11,940	X	X	–	X	9,598	X	X
Mich.	14,303	X	X	–	X	6,351	X	–
Ohio	9,210	X	X	X	X	–	–	–
Wisc.	17,336	X	X	–	–	–	–	–
West North Central	**68,411**					**1,524**		
Ia.	20,106	X	X	–	X	–	–	–
Kans.	15,795	X	X	X	X	–	–	–
Minn.	–	–	–	–	–	–	–	–
Mo.	3,806	X	X	–	–	1,524	X	X
Nebr.	15,103	X	–	–	–	–	–	–
N.D.	5,272	X	X	–	X	–	–	–
S.D.	8,329	X	X	–	X	–	–	–
South Atlantic	**68,559**					**26,475**		
Del.	4,064	X	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–
Fla.	4,362	X	X	–	–	104	–	X
Ga.	–	–	–	–	–	–	–	–
Md.	21,388	X	X	X	X	13,598	X	X
N.C.	15,422	X	X	X	X	–	–	–
S.C.	–	–	–	–	–	8,176	X	X
Va.	23,323	X	X	–	X	4,597	X	–
W. Va.	–	–	–	–	–	–	–	–
East South Central	**14,659**					**876**		
Ala.	–	–	–	–	–	–	–	–
Ky.	11,656	X	X	X	–	876	X	X
Miss.	3,003	X	X	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–
West South Central	**15,045**					**17,546**		
Ark.	–	–	–	–	–	–	–	–
La.	2,287	X	X	–	X	8,348	X	X
Okla.	–	–	–	–	–	5,165	X	X
Tex.	12,758	X	X	–	X	4,033	X	X
Mountain	**83,415**					**4,768**		
Ariz.	1,108	X	X	X	X	536	X	X
Colo.	7,600	X	X	–	X	1,600	X	X
Ida.	49,362	X	X	–	X	–	–	–
Mont.	3,159	X	X	–	X	345	–	X
Nev.	3,906	X	X	X	X	2,262	X	X
N.M.	10,852	X	X	X	X	22	X	X
Utah	7,428	X	X	–	X	3	–	X
Wyo.	–	–	–	–	–	–	–	–
Pacific	**12,098**					**7,630**		
Alaska	474	X	X	–	–	16	–	X
Cal.	9,463	X	X	X	X	5,028	–	X
Hawaii	1,025	X	X	X	X	2,577	X	X
Ore.	–	–	–	–	–	–	–	–
Wash.	1,136	X	X	–	–	9	–	X
Territories	**3,002**					**6,112**		
Guam	–	–	–	–	–	4	X	–
P.R.	2,661	X	–	–	–	3,624	X	X
V.I.	341	X	X	–	–	2,484	X	–

Table 4-44
X. ENVIRONMENTAL CHEMISTRY
C. Pesticide Samples

Lab & Region	Number of Samples	Types				Other
		Human Source	Water	Milk	Foods	
Total	**22,286**					
Average	768					
New England	**1,159**					
Conn.	96	–	X	–	–	Fish, leachates, oil, sugar
Mass.	–	–	–	–	–	–
Me.	696	X	X	–	–	Formulations, environmental
N.H.	–	–	–	–	–	–
R.I.	367	–	X	X	X	–
Vt.	–	–	X	–	–	–
Middle Atlantic	**3,847**					
N.J.	3,847	X	X	X	X	Blood
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	–
East North Central	**5,823**					
Ill.	979	–	X	X	X	–
Ind.	3,176	–	X	X	X	–
Mich.	–	–	–	–	–	–
Ohio	791	–	X	–	X	–
Wisc.	877	–	X	–	–	Waste water, fish (game)
West North Central	**1,124**					
Ia.	333	X	X	–	X	–
Kans.	510	–	X	–	–	–
Minn.	–	–	–	–	–	–
Mo.	281	–	X	X	–	–
Nebr.	–	–	–	–	–	–
N.D.	–	–	–	–	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**3,341**					
Del.	–	–	–	–	–	
D.C.	–	–	–	–	–	–
Fla.	23	–	X	–	X	–
Ga.	–	–	–	–	–	–
Md.	775	–	X	X	X	Seafood
N.C.	811	–	X	–	–	–
S.C.	655	X	–	X	X	Animal tissues and fluids
Va.	1,077	–	X	–	–	Fish, sediment/soil, shellfish
W. Va.	–	–	–	–	–	–
East South Central	**974**					
Ala.	–	–	–	–	–	–
Ky.	974	X	X	X	X	–
Miss.	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–
West South Central	**1,195**					
Ark.	–	–	–	–	–	–
La.	365	–	X	X	X	–
Okla.	–	–	–	–	–	–
Tex.	830	–	X	X	X	–
Mountain	**2,729**					
Ariz.	1,466	–	X	X	X	Fish
Colo.	672	–	X	X	X	–
Ida.	358	X	X	X	–	Tissue (fish), plant, air
Mont.	75	–	–	–	–	–
Nev.	45	–	X	–	–	–
N.M.	75	–	X	X	X	Soils
Utah	38	X	X	X	–	Animals (e.g., fish, birds, bats, etc.)
Wyo.	–	–	–	–	–	–
Pacific	**2,094**					
Alaska	–	–	–	–	–	–
Cal.	385	–	X	–	X	Oils (for PCB's)
Hawaii	99	–	X	X	X	Sediment
Ore.	–	–	–	–	–	–
Wash.	1,610	X	X	–	X	Botanicals, soil, urine, blood, wildlife
Territories	**–**					
Guam	–	–	–	–	–	–
P.R.	–	–	–	–	–	–
V.I.	–	–	–	–	–	–

Table 4-45
X. ENVIRONMENTAL CHEMISTRY
D. Air Pollution Samples

Lab & Region	Number of Samples	Types of Activity							
		Discrete Sampling Stations							Continuous Samp. Stations
		Number of Stations	Particulate				Gaseous	Other	
			Solids	Metals	Organics	Other			
Total	**146,600**	**2,898**							**76**
Average	6,664	170							8
New England	**24,928**	**64**							**18**
Conn.	5,628	52	X	X	X	X	X	X	13
Mass.	–	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–
R.I.	19,300	12	X	X	X	X	X	–	5
Vt.	–	–	–	–	–	–	–	–	–
Middle Atlantic	**749**								**–**
N.J.	749	–	X	X	X	X	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–
East North Central	**19,338**	**165**							**9**
Ill.	–	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–
Ohio	9,538	80	X	X	X	X	X	–	–
Wisc.	9,800	85	X	–	–	–	X	–	9
West North Central	**14,881**	**125**							**8**
Ia.	3,250	–	X	X	–	–	X	–	–
Kans.	8,179	67	X	X	–	X	X	–	5
Minn.	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–	–
N.D.	2,220	37	X	–	–	X	X	–	3
S.D.	1,232	21	X	–	–	–	X	–	–
South Atlantic	**29,190**	**2,260**							**–**
Del.	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–
Fla.	365	1	X	–	–	–	–	–	–
Ga.	–	–	–	–	–	–	–	–	–
Md.	17,185	84	X	X	X	–	X	–	–
N.C.	–	–	–	–	–	–	–	–	–
S.C.	–	–	–	–	–	–	–	–	–
Va.	11,640	2,175	X	X	–	X	–	–	–
W. Va.	–	–	–	–	–	–	–	–	–
East South Atlantic	**–**								**–**
Ala.	–	–	–	–	–	–	–	–	–
Ky.	–	–	–	–	–	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–
West South Central	**4,072**								**–**
Ark.	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–
Tex.	4,072	–	X	X	–	–	X	–	–
Mountain	**22,654**	**216**							**31**
Ariz.	1,912	34	X	X	X	X	X	X	13
Colo.	5,868	74	X	X	X	X	–	–	4
Ida.	2,396	34	X	X	–	X	–	–	6
Mont.	2,619	–	X	X	–	X	X	X	–
Nev.	2,452	8	X	X	X	–	–	–	8
N.M.	7,376	66	X	X	–	X	X	–	–
Utah	31	–	X	X	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–
Pacific	**30,788**	**68**							**10**
Alaska	–	–	–	–	–	–	–	–	–
Cal.	3,419	50	X	X	X	–	X	X	10
Hawaii	27,369	18	X	–	–	–	X	X	–
Ore.	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–	–	–
Territories	**–**								**–**
Guam	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

Table 4-46
X. ENVIRONMENTAL CHEMISTRY
E. Radiological Analysis

Lab & Region	Number of Samples	Types							
		Air	Water	Milk	Food	Silt	Soil	Wipes	Other
Total	**27,035**								
Average	1,229								
New England	**1,762**								
Conn.	792	X	X	X	X	X	–	X	Surface water, sewage, fish, silage, grass, seaweed
Mass.	–	–	–	–	–	–	–	–	–
Me.	508	X	X	X	X	X	X	X	–
N.H.	–	–	–	–	–	–	–	–	–
R.I.	462	X	X	X	X	–	–	–	–
Vt.	–	–	–	–	–	–	–	–	–
Middle Atlantic	**–**								
N.J.	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–
East North Central	**4,918**								
Ill.	1,417	X	X	X	X	–	–	X	–
Ind.	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–
Ohio	2,214	–	X	X	–	–	–	–	–
Wisc.	1,287	X	X	X	–	–	X	–	–
West North Central	**4,811**								
Ia.	1,589	X	X	X	–	–	–	–	–
Kans.	831	X	X	X	–	–	–	X	–
Minn.	–	–	–	–	–	–	–	–	–
Mo.	482	–	X	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–	–
N.D.	1,909	X	X	–	–	–	–	X	–
S.D.	–	–	–	–	–	–	–	–	–
South Atlantic	**5,221**								
Del.	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–	–
Ga.	–	–	–	–	–	–	–	–	–
Md.	1,946	X	X	X	X	X	X	X	–
N.C.	1,275	X	X	X	X	X	X	X	–
S.C.	–	–	–	–	–	–	–	–	–
Va.	2,000	X	X	–	–	X	X	X	–
W. Va.	–	–	–	–	–	–	–	–	–
East South Central	**–**								
Ala.	–	–	–	–	–	–	–	–	–
Ky.	–	–	–	–	–	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–
West South Central	**3,144**								
Ark.	–	–	–	–	–	–	–	–	–
La.	24	–	X	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–
Tex.	3,120	X	X	X	X	X	X	X	–
Mountain	**4,161**								
Ariz.	–	–	–	–	–	–	–	–	–
Colo.	3,648	X	X	–	–	X	X	–	–
Ida.	83	–	X	–	–	–	–	–	–
Mont.	38	–	X	–	–	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–
N.M.	191	–	X	–	–	–	–	–	–
Utah	201	–	X	–	–	–	X	–	–
Wyo.	–	–	–	–	–	–	–	–	–
Pacific	**3,018**								
Alaska	–	–	–	–	–	–	–	–	–
Cal.	2,295	X	X	X	X	X	X	X	–
Hawaii	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–
Wash.	723	X	X	X	X	–	X	X	–
Territories	**–**								
Guam	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

Table 4-47
ENVIRONMENTAL CHEMISTRY
F. Other Samples

Lab	Number of Samples	Types
Total	**3,539**	
Alaska	116	Shellfish — PSP monitoring.
Cal.	1,013	Drugs, cosmetics and hazardous substances, air monitoring instrument calibration.
D.C.	419	Heavy metals in soils and plants.
Fla.	43	Bedding
Guam	2	Rice (for enrichment).
Me.	2	—
Md.	279	Bedding and upholstery.
Mont.	177	Vegetation — metals, fluoride.
N.M.	366	Heavy metals in/on soils, muds, filters.
Ohio	89	Water — organics.
S.C.	73	Heavy metals in oysters and clover.
S.D.	170	Fish for Hg analysis.
Tex.	790	PKU, metals (sediment), mercury (blood), lead (paint)

Table 4-48
XI. OCCUPATIONAL HEALTH AND SAFETY

Lab & Region	Total Occup. Health & Safety Samples	Number of Environmental Samples	Number of Biological Samples
Total	**51,549**	**47,736**	**3,813**
Average	2,577	2,387	424
New England	**3,836**	**1,536**	**2,300**
Conn.	3,172	1,055	2,117
Mass.	—	—	—
Me.	41	41	—
N.H.	—	—	—
R.I.	623	440	183
Vt.	—	—	—
Middle Atlantic	**—**	**—**	**—**
N.J.	—	—	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central	**9,272**	**9,245**	**27**
Ill.	—	—	—
Ind.	—	—	—
Mich.	—	—	—
Ohio	2,349	2,349	—
Wisc.	6,923	6,896	27
West North Central	**2,385**	**1,870**	**515**
Ia.	1,620	1,105	515
Kans.	765	765	—
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	—	—	—
South Atlantic	**15,405**	**15,405**	**—**
Del.	—	—	—
D.C.	—	—	—
Fla.	1,190*	1,190	—
Ga.	52	52	—
Md.	7,729	7,729	—
N.C.	4,634	4,634	—
S.C.	—	—	—
Va.	1,800	1,800	—
W. Va.	—	—	—
East South Central	**1,954**	**1,617**	**337**
Ala.	—	—	—
Ky.	1,954	1,617	337
Miss.	—	—	—
Tenn.	—	—	—
West South Central	**370**	**358**	**12**
Ark.	—	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	370	358	12
Mountain	**5,387**	**5,137**	**250**
Ariz.	565	565	—
Colo.	3,140	3,140	—
Ida.	—	—	—
Mont.	164	112	52
Nev.	—	—	—
N.M.	29	29	—
Utah	1,489	1,291	198
Wyo.	—	—	—
Pacific	**12,940**	**12,568**	**372**
Alaska	—	—	—
Cal.	12,940	12,568	372
Hawaii	—	—	—
Ore.	—	—	—
Wash.	—	—	—
Territories	**—**	**—**	**—**
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

*Includes Biological Samples.

Table 4-49
XII. TOXICOLOGY
SAMPLES BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Toxicology Samples	A	B
		Physical Samples	Biological Samples
Total	**773,973**	**73,031**	**700,942**
Average	19,349	2,705	18,446
New England	**243,877**	**50,711**	**193,166**
Conn.	83,200	45,859	37,341
Mass.	140,468	756	139,712
Me.	9,198	1,206	7,992
N.H.	81	–	81
R.I.	7,425	2,890	4,535
Vt.	3,505	–	3,505
Middle Atlantic	**187,912**	**1,630**	**186,282**
N.J.	183,263	1,620	181,643
N.Y.	–	–	–
Pa.	4,649	10	4,639
East North Central	**40,730**	**1,405**	**39,325**
Ill.	12,596	1,043	11,553
Ind.	132	48	84
Mich.	–	–	–
Ohio	13,995	57	13,938
Wisc.	14,007	257	13,750
West North Central	**20,966**	**5,194**	**15,772**
Ia.	8,304	402	7,902
Kans.	3,233	164	3,069
Minn.	–	–	–
Mo.	450	60	390
Nebr.	8,943	4,568	4,375
N.D.	36	–	36
S.D.	–	–	–
South Atlantic	**136,318**	**11,295**	**125,023**
Del.	2,128	–	2,128
D.C.	19,696	–	19,696
Fla.	22,952	28	22,924
Ga.	46,653	–	46,653
Md.	10,210	640	9,570
N.C.	2,430	18	2,412
S.C.	9,079	639	8,440
Va.	23,170	9,970	13,200
W. Va.	–	–	–
East South Central	**6,117**	**458**	**5,659**
Ala.	4,282	–	4,282
Ky.	1,835	458	1,377
Miss.	–	–	–
Tenn.	–	–	–
West South Central	**53,709**	**–**	**53,709**
Ark.	–	–	–
La.	–	–	–
Okla.	–	–	–
Tex.	53,709	–	53,709
Mountain	**67,124**	**1,555**	**65,569**
Ariz.	–	–	–
Colo.	24,846	–	24,846
Ida.	26,602	476	26,126
Mont.	6	–	6
Nev.	–	–	–
N.M.	8,242	–	8,242
Utah	3,942	1,079	2,863
Wyo.	3,486	–	3,486
Pacific	**16,105**	**451**	**15,654**
Alaska	561	–	561
Cal.	15,360	392	14,968
Hawaii	15	15	–
Ore.	–	–	–
Wash.	169	44	125
Territories	**1,115**	**332**	**783**
Guam	–	–	–
P.R.	799	16	783
V.I.	316	316	–

Table 4-50
XII. TOXICOLOGY
A. Physical Samples (F-Forensic, O-Other)

Lab	Number of Samples	Types										
		Liquids for Alcohol	Pesticides	PCB's	Plant and Plant Material	Drugs and Narcotics	Articles for Blood Stains	Paint – Comparison	Paint – Lead	Fibers and Hairs	Gunpowder Residues	Other
Total	**73,115**											
Average	2708											
Cal.	392	–	–	–	–	–	–	–	O	–	–	Mutagenic screening by Ames Bioassay
Conn.	45,859	F	–	–	F	F	F	F	F/O	F	F	F/Clay, sand, concrete, fire accelerants, clothing for seminal stains
Fla.	28	O	O	–	–	O	–	–	O	–	–	–
Hawaii	15	–	–	–	–	O	–	–	–	–	–	–
Ida.	476	F	O	O	F	F	F	F	–	F	F	–
Ill.	1,043	F/O	–	–	F/O	F/O	–	–	O	–	–	Foodstuffs
Ind.	132	–	–	–	O	O	–	–	O	–	–	–
Ia.	402	–	–	–	–	–	–	–	O	–	–	–
Kans.	164	F	–	–	–	F	–	–	O	–	–	–
Ky.	458	F/O	F/O	F/O	F	F	–	–	O	–	–	–
Me.	1,206	F	O	O	F	F	–	–	F	–	–	ocarbons (Argon)
Md.	640	O	–	–	F	F/O	–	–	–	–	–	–
Mass.	756	–	–	–	–	–	–	–	F/O	–	–	F/O – Water, soil, pottery, toys
Mo.	60	–	–	–	–	–	–	–	O	O	–	–
Nebr.	4,568	F/O	–	–	F	F/O	–	–	–	–	–	–
N.J.	1,620	–	–	–	–	–	–	–	O	–	–	–
N.C.	18	–	–	O	–	–	–	–	–	–	–	–
Ohio	57	F/O	O	O	F/O	F/O	–	–	O	–	–	–
Pa.	10	–	–	–	–	O	–	–	–	–	–	–
P.R.	16	O	–	–	O	O	–	–	O	O	–	Label claim and quality control of drug pharmaceutical products.
R.I.	2,890	F	–	–	F	F	–	–	–	–	–	F/Toluene, toxic chemicals, tear gas.
S.C.	639	O	O	O	O	O	–	–	O	–	–	% NaCl in fat back; total solids in wax; Strychnine in soil, powder and food; bioassay of food, animals and cosmetics; heavy metal in food, water, air, pills, pottery way, paper, and Christmas ornament; pH in food and water; microscopic examination of food; ammonia in food
Utah	1,079	F	F/O	F/O	F	F	–	–	–	–	–	–
Va.	9,970	F	O	O	F	F	F	F	–	F	F	F/Fire arms and tool marks, numbers restoration, latent fingerprints, shoeprints, tire treads, questioned fingerprints, handwriting, glass, soil, arson.
V.I.	316	–	–	–	–	X	–	–	–	–	–	--
Wash.	44	–	–	–	–	–	–	–	O	–	–	O/Ceramic ware
Wisc.	257	–	–	–	–	O	–	–	O	–	–	O/Soil for lead, marijuana for paraquat.

Table 4-51
XII. TOXICOLOGY
B. Biological Samples (F-Forensic, O-Other)

Lab & Region	Number of Samples	1. Blood							
		Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other
Total	**700,942**								
Average	18,446								
New England	**193,166**								
Conn.	37,341	F	F	F	F/O	F/O	–	–	–
Mass.	139,712	–	–	–	F/O	–	–	–	F/O – Erythrocyte protoporphyrin
Me.	7,992	F	F	F	O	F	F	O	–
N.H.	81	–	–	–	–	–	–	–	–
R.I.	4,535	F	F	F	–	F	F	–	–
Vt.	3,505	F	F	–	–	–	–	–	–
Middle Atlantic	**186,282**								
N.J.	181,643	–	–	–	O	–	–	–	O/Erythrocyte protoporphyrin, microhematocrit
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	4,639	F/O	F/O	O	O	O	–	–	–
East North Central	**39,325**								
Ill.	11,553	F/O	F/O	F/O	F/O	F/O	F/O	–	–
Ind.	84	–	–	–	O	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–
Ohio	13,938	F/O	F/O	F/O	O	O	–	O	F/O – Paraquat
Wisc.	13,750	F/O	O	O	O	O	–	–	O/Cholinesterase, carbon monoxide, erythrocyte protoporphyrin
West North Central	**15,772**								
Ia.	7,902	–	–	F/O	O	–	–	O	O/Pesticides
Kans.	3,069	F	–	F	O	O	–	O	–
Minn.	–	–	–	–	–	–	–	–	–
Mo.	390	–	–	–	O	–	–	–	–
Nebr.	4,375	F/O	–	O	O	O	O	–	–
N.O.	36	–	–	–	O	–	–	–	–
S.O.	–	–	–	–	–	–	–	–	–
South Atlantic	**125,023**								
Oel.	2,128	–	–	–	O	–	–	–	–
O.C.	19,696	O	–	–	O	–	–	–	O/Erythrocyte protoporphyrin
Fla.	22,924	F	O	O	O	O	O	O	–
Ga.	46,653	–	–	–	O	–	–	–	–
Md.	9,570	–	–	–	O	–	–	–	–
N.C.	2,412	–	–	–	O	–	–	–	–
S.C.	8,440	O	O	O	O	O	O	O	Erythrocyte protoporphyrin
Va.	13,200	F	F	F	O	–	–	–	O/EP
W. Va.	–	–	–	–	–	–	–	–	–
East South Central	**5,659**								
Ala.	4,282	–	–	–	O	–	–	–	–
Ky.	1,377	F	F	F	F	F	F	–	–
Miss.	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–
West South Central	**53,709**								
Ark.	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–
Tex.	53,709	F	–	O	O	–	–	–	O/Erythrocyte protoporphyrin
Mountain	**65,569**								
Ariz.	–	–	–	–	–	–	–	–	–
Colo.	24,846	F	–	–	–	–	–	–	–
Ida.	26,126	F/O	F/O	F/O	F/O	F/O	F/O	F/O	Blood typing, miscellaneous
Mont.	6	–	–	–	O	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–
N.M.	8,242	F	–	O	O	O	–	–	–
Utah	2,863	F	F	F	–	–	–	F/O	–
Wyo.	3,486	F/O	–	F/O	O	O	O	–	–
Pacific	**15,654**								
Alaska	561	–	–	O	–	–	–	–	–
Cal.	14,968	F/O	–	–	O	–	–	–	O/FEP
Hawaii	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–
Wash.	125	–	–	–	O	–	–	–	–
Territories	**783**								
Guam	–	–	–	–	–	–	–	–	–
P.R.	783	O	O	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

Table 4-52
XII. TOXICOLOGY
B. Biological Samples (F-Forensic, O-Other)

Lab & Region	2. Urine								3. Body Tissues							
	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other
New England																
Conn.	F	F	F	O	F/O	–	–	–	F	F	F	O	F/O	–	–	–
Mass.	–	–	–	O	–	–	–	–	–	–	–	O	–	–	–	–
Me.	F	F	F	O	F	F	O	–	F	F	F	O	F	F	O	–
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	F	F	F	–	F	F	–	–	F	F	F	–	F	F	–	–
Vt.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Middle Atlantic																
N.J.	–	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
East North Central																
Ill.	F/O	F/O	F/O	–	F/O	F/O	F/O	–	F	F	F	–	–	F	–	–
Ind.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ohio	F/O	F/O	F/O	O	O	–	–	F/O-Paraquat	F/O	F/O	F/O	–	–	–	–	F/O-Paraquat
Wisc.	F/O	–	O	O	O	–	–	O/Radioimmunoassay for morphine, barbiturates—TLC, arsenic	–	–	–	–	–	–	–	–
West North Central																
Ia.	–	–	O	O	–	–	–	–	–	–	–	–	–	–	–	–
Kans.	F	–	F	O	O	–	–	–	–	–	F	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	O	–	–	–	–	–	–	–	–	–	–	–
Nebr.	F/O	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
N.O.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S.O.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Atlantic																
Del.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D.C.	O	O	O	–	–	–	–	–	–	–	–	–	–	–	–	–
Fla.	O	–	O	O	O	–	–	–	–	–	–	–	–	–	–	–
Ga.	–	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.C.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S.C.	O	O	O	O	O	–	O	–	–	–	–	O	O	–	O	–
Va.	F	F	F	O	–	–	–	–	–	–	F	O	O	–	–	–
W.Va.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
East South Central																
Ala.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ky.	F	F	F	F	F	F	–	–	F	F	F	F	F	F	–	–
Miss.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
West South Central																
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tex.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mountain																
Ariz.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Colo.	O	–	F/O	–	–	–	–	O/Antiepileptics	–	–	–	–	–	–	–	–
Ida.	F/O	F/O	F/O	F/O	F/O	F/O	F/O	–	F/O	F/O	F/O	F/O	F/O	F/O	F/O	–
Mont.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.M.	–	–	F	–	–	–	–	–	–	–	–	–	O	O	–	–
Utah	F	F	F	–	–	–	F/O	–	F	F	F	–	–	–	F/O	–
Wyo.	F/O	–	F/O	–	–	–	–	–	–	–	O	–	–	–	–	–
Pacific																
Alaska	–	–	O	–	–	–	–	–	–	–	O	–	–	–	–	–
Cal.	–	–	–	O	–	–	–	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Territories																
Guam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	X	–	–	–	–	–	–	–	X	–	–	–	–	–

Table 4-53
XII. TOXICOLOGY
B. Biological Samples (F-Forensic, O-Other)

Lab & Region	4. Body Fluids							5. Breath		6. Other
	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Volatiles	Other	
New England										
Conn.	F	F	F	–	F	–	–	F	–	–
Mass.	–	–	–	O	–	–	–	–	–	–
Me.	F	F	F	O	F	F	O	F	–	–
N.H.	–	–	–	–	–	–	–	–	–	O/Red tide
R.I.	F	F	F	–	F	F	–	–	–	F/Acid phosphatase
Vt.	–	–	–	–	–	–	–	F	F/Ethyl alcohol	–
Middle Atlantic										
N.J.	–	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–	–
East North Central										
Ill.	F/O	F/O	F/O	–	F/O	F/O	F/O	–	–	–
Ind.	–	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–	–
Ohio	F/O	F/O	F/O	–	–	–	–	F/O	–	O/Paraquat (body fluids)
Wisc.	O	–	O	–	–	–	–	–	–	–
West North Central										
Ia.	–	–	–	–	–	–	–	–	–	–
Kans.	–	–	F	–	–	–	–	–	–	O/As (hair, nails)
Minn.	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	F	–	–
N.D.	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–
South Atlantic										
Del.	–	–	–	–	–	–	–	–	–	–
D.C.	O	–	O	–	–	–	–	–	–	–
Fla.	O	O	O	–	O	O	O	–	–	–
Ga.	–	–	–	–	–	–	–	–	–	–
Md.	–	–	–	–	–	–	–	–	–	–
N.C.	–	–	–	–	–	–	–	–	–	–
S.C.	O	O	O	–	O	O	O	–	–	O/Hydrocarbons (body fluids)
Va.	–	–	F	–	–	–	–	–	–	–
W.Va.	–	–	–	–	–	–	–	–	–	–
East South Central										
Ala.	–	–	–	–	–	–	–	–	–	–
Ky.	F	F	F	F	F	F	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–	–
West South Central										
Ark.	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–	–
Tex.	–	–	–	–	–	–	–	–	–	–
Mountain										
Ariz.	–	–	–	–	–	–	–	–	–	–
Colo.	–	–	–	–	–	–	–	–	–	–
Ida.	F/O	F/O	F/O	F/O	F/O	F/O	F/O	F	–	–
Mont.	–	–	–	–	–	–	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–	–
N.M.	–	–	–	–	–	–	–	F	–	–
Utah	F	F	F	–	–	–	F/O	–	–	–
Wyo.	–	–	O	–	–	–	–	F	–	–
Pacific										
Alaska	–	–	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–	F/Ethyl alcohol	F/Ethyl alcohol (water)
Hawaii	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–	–	–	–
Territories										
Guam	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–

Table 4-54
XIII. LABORATORY IMPROVEMENT PROGRAM
SUMMARY BY LABORATORY CATEGORY

Lab & Region	Number of Professional & Technical Positions In LIP	A	B	C	D	E
		Clinical	Public Health	Dairy & Food	Water	Other
Total	**264.9**	**14,236**	**265**	**535**	**2,690**	
Average	6.2	365	9.1	18.4	84.1	
New England	**15.6**	**710**	**8**	**73**	**121**	
Conn.	11.0	185	8	26	82	X
Mass.	—	400	—	45	—	X
Me.	2.5	58	—	—	35	—
N.H.	1.0	35	—	—	—	—
R.I.	1.0	—	—	2	4	—
Vt.	0.1	32	—	—	—	—
Middle Atlantic	**60.6**	**2,456**	**2**	**—**	**401**	
N.J.	25.0	456	—	—	127	—
N.Y.	—	—	—	—	—	—
Pa.	35.6	2,000	2	—	274	—
East North Central	**22.5**	**2,883**	**112**	**179**	**870**	
Ill.	6.0	1,800	10	39	—	—
Ind.	2.0	—	67	14	55	X
Mich.	8.0	—	13	—	145	—
Ohio	6.5	409	13	21	566	—
Wisc.	—	675	9	105	104	—
West North Central	**31.3**	**1,332**	**8**	**48**	**52**	
Ia.	4.5	227	—	31	24	—
Kans.	6.0	230	2	—	—	X
Minn.	10.3	695	—	—	—	—
Mo.	8.0	—	1	12	—	—
Nebr.	—	—	—	—	13	—
N.D.	0.5	60	—	5	10	—
S.D.	2.0	120	5	—	5	—
South Atlantic	**53.0**	**1,378**	**11**	**87**	**299**	
Del.	0.5	24	—	—	8	—
D.C.	2.0	70	1	—	—	—
Fla.	25.0	816	9	—	170	X
Ga.	—	—	—	—	—	—
Md.	5.0	159	—	15	45	X
N.C.	8.0	—	—	39	—	—
S.C.	4.0	95	1	7	—	—
Va.	4.5	—	—	17	76	—
W.Va.	4.0	214	—	9	—	X
East South Central	**11.5**	**1,325**	**7**	**87**	**120**	
Ala.	1.5	—	—	9	15	—
Ky.	3.0	1,125	3	30	—	—
Miss.	—	200	4	5	16	—
Tenn.	7.0	—	—	43	89	—
West South Central	**2.8**	**324**	**29**	**37**	**—**	
Ark.	—	—	—	—	—	—
La.	0.5	—	—	7	—	—
Okla.	2.3	324	5	6	—	—
Tex.	—	—	24	24	—	—
Mountain	**28.2**	**1,063**	**38**	**17**	**150**	
Ariz.	8.0	164	12	—	23	—
Colo.	3.0	185	9	7	25	—
Ida.	3.5	207	7	7	—	X
Mont.	1.0	126	2	—	29	X
Nev.	5.2	139	4	2	20	—
N.M.	2.0	95	3	1	23	X
Utah	4.5	97	1	—	23	X
Wyo.	1.0	50	—	—	7	—
Pacific	**30.5**	**2,408**	**45**	**5**	**666**	
Alaska	1.0	65	—	1	—	X
Cal.	24.0	2,070	39	—	626	—
Hawaii	1.5	72	4	4	7	—
Ore.	4.0	201	2	—	33	X
Wash.	—	—	—	—	—	—
Territories	**9.0**	**357**	**5**	**2**	**11**	
Guam	—	6	—	—	3	—
P.R.	9.0	350	4	2	8	—
V.I.	—	—	1	—	—	—

Table 4-55
XIII. LABORATORY IMPROVEMENT PROGRAM
A. Clinical Laboratories

Lab & Region	1. No. Labs in State	2. No. Labs Lic./Reg./App./ Cert. by State	3. No. by LIP				4. Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
			Lic.	Reg.	App.	Cert.	
Total	**14,236**	**10,566**	**4,839**	**1,245**	**3,851**	**2,938**	
Average	365.0	251.6	302.4	177.9	148.1	163.2	
New England	**710**	**618**	**187**	**94**	**374**	**225**	
Conn.	185	185	123	62	74	71	–
Mass.	400	330	–	–	300	117	Div. of Hospital and Ambulatory Care; MDPH
Me.	58	2	2	–	–	–	–
N.H.	35	7	–	–	–	7	–
R.I.	–	62	62	–	–	30	–
Vt.	32	32	–	32	–	–	–
Middle Atlantic	**2,456**	**965**	**965**	**–**	**–**	**–**	
N.J.	456	456	456	–	–	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	2,000	509	509	–	–	–	–
East North Central	**2,883**	**1,379**	**482**	**53**	**1,062**	**1,169**	
Ill.	1,800	294	–	–	563	–	–
Ind.	–	154	–	–	154	2	–
Mich.	–	530	441	53	35	146	–
Ohio	408	–	41	–	310	1,021	–
Wisc.	675	401	–	–	–	–	Wisc. Div. of Health, Section of Laboratory Certification
West North Central	**1,332**	**629**	**156**	**–**	**580**	**207**	
Ia.	227	99	–	–	99	–	–
Kans.	230	201	156	–	168	53	–
Minn.	695	–	–	–	–	–	Div. of Health Facilities, Minn. Dept. of Health
Mo.	–	271	–	–	268	154	–
Nebr.	–	–	–	–	–	–	Laboratory Improvement Program assigned to Bureau of Health Care Services, Division of Standards, State Department of Health
N.D.	60	13	–	–	–	–	Div. of Health Facilities
S.D.	120	45	–	–	45	–	–
South Atlantic	**1,378**	**1,181**	**170**	**681**	**647**	**336**	
Del.	24	11	11	–	11	–	–
D.C.	70	65	–	–	38	43	–
Fla.	816	681	–	681	416	195	–
Ga.	–	–	–	–	–	–	–
Md.	159	159	159	–	24	85	
N.C.	–	–	–	–	–	–	N.C. Division of Facility Services
S.C.	95	94	–	–	–	–	Medicare certification is responsibility of Division of Licensing and Certification in DHEC.
Va.	–	–	–	–	–	–	–
W.Va.	214	171	–	–	158	13	Health Facilities Evaluation Program, State HD
East South Central	**1,325**	**653**	**250**	**–**	**398**	**35**	
Ala.	–	91	–	–	86	–	Licensure and Certification—other than premarital approval and quality control.
Ky.	1,125	203	–	–	203	–	Div. of Licensure and Regulation certifies labs.
Miss.	200	109	–	–	109	–	–
Tenn.	–	250	250	–	–	35	–
West South Central	**324**	**1,705**	**–**	**–**	**181**	**–**	
Ark.	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	Office of Management, Dept. of Health and Human Resources licenses clinical laboratories.
Okla.	324	181	–	–	181	–	–
Tex.	–	1,524	–	–	–	–	Licensing and Certification Bureau, Tex. Dept. of Health
Mountain	**1,063**	**823**	**83**	**417**	**595**	**69**	
Ariz.	164	153	28	–	74	51	–
Colo.	185	–	–	–	116	18	–
Ida.	207	207	–	207	207	–	–
Mont.	126	126	–	126	–	–	–
Nev.	139	139	55	84	–	–	–
N.M.	95	92	–	–	92	–	Inspection performed under agreement with Licensing and Certification Section of Health Serv. Div.
Utah	97	56	–	–	56	–	–
Wyo.	50	50	–	–	50	–	–
Pacific	**2,408**	**2,262**	**2,196**	**–**	**14**	**897**	
Alaska	65	14	–	–	14	–	–
Cal.	2,070	1,995	1,995	–	–	845	–
Hawaii	72	52	–	–	–	52	–
Ore.	201	201	201	–	–	–	–
Wash.	–	–	–	–	–	–	–
Territories	**357**	**351**	**350**	**–**	**–**	**–**	
Guam	6	–	–	–	–	–	HEW
P.R.	350	350	350	–	–	–	–
V.I.	1	1	–	–	–	–	–

Table 4-55
XIII. LABORATORY IMPROVEMENT PROGRAM
A. Clinical Laboratories — Continued

Lab & Region	Activity of Laboratory Improvement Program Staff																							
	5. Proficiency Testing													6. Field Visits								7.	8.
					Immunology									LIP Programs				Other Programs				Trng	Consult
	Diag. Bact.	Mycology	Parasitology	Virology	Syphilis Serology	Non-Syphilis Serology	Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dairy/Food	Other	Cert.	Lic.	App.	Other	Cert.	Lic.	App.	Other		
New England																							
Conn.	X	X	X	X	X	X	X	X	–	–	–	–	Dog labs., blood banks	–	X	X	–	X	X	–	–	X	X
Mass.	X	–	–	–	X	X	–	X	–	–	–	–	Immunohematology	X	–	X	–	X	–	X	–	X	X
Me.	X	–	–	–	X	X	X	X	–	X	X	–	Blood alcohol drug ident.	–	X	–	–	–	X	–	–	X	X
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	X	X
R.I.	X	X	X	–	X	X	X	X	–	X	–	X	–	–	X	–	–	X	–	–	–	X	X
Vt.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	X	X
Middle Atlantic																							
N.J.	X	X	X	–	X	X	X	X	–	X	X	–	–	X	X	–	–	X	–	–	–	X	X
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	X	X	X	–	X	X	X	X	–	–	–	–	Clinical toxicology	–	X	X	–	X	X	–	–	X	X
East North Central																							
Ill.	–	–	–	–	X	–	–	–	–	–	–	–	Blood alcohol, blood lead, PKU — Guthrie and quant.	–	–	X	–	–	–	–	–	X	X
Ind.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	X	X
Mich.	X	X	X	–	X	–	X	X	–	–	–	–	PKU	X	X	–	–	X	X	–	–	–	X
Ohio	X	X	X	–	X	X	X	X	–	–	–	–	Alcohol tests	–	–	X	–	X	X	–	–	X	X
Wisc.	X	X	X	–	X	X	X	X	–	–	–	X	Alcohol, PKU, urinalysis, immunohematology	X	–	–	–	–	X	X	–	X	X
West North Central																							
Ia.	X	X	X	–	X	X	X	X	–	–	–	–	–	–	–	X	–	–	–	X	–	X	X
Kans.	–	–	–	–	X	–	–	–	–	X	X	X	–	X	X	X	–	X	–	–	–	X	X
Minn.	X	X	–	–	X	X	X	X	–	–	–	–	Blood banking, urinalysis	–	–	–	–	–	–	–	–	X	X
Mo.	–	–	–	–	X	–	–	–	–	–	–	X	PKU	–	–	X	–	X	–	–	–	X	X
Nebr.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	X	X
South Atlantic																							
Del.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	X	X	–	X	X	X	–	X	X
D.C.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	X	–	–	–	X	X
Fla.	–	–	–	X	X	–	–	–	–	–	–	–	–	–	–	–	X	X	–	–	–	X	X
Ga.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	X	X	X	X	X	X	X	X	X	–	–	–	–	X	X	–	–	X	X	–	–	X	X
N.C.	X	X	X	–	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
S.C.	X	X	X	–	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
Va.	–	–	–	–	X	–	–	–	–	–	–	–	Blood banks	–	–	X	–	–	–	–	–	X	X
W.Va.	X	–	X	–	X	–	X	X	–	–	–	–	–	–	–	X	–	–	–	–	–	X	X
East South Central																							
Ala.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	X	–	X	X
Ky.	X	–	–	–	X	–	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–
Miss.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	X	–	–	X	–	–	–	X	X
West South Central																							
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	X	–	X	X
Tex.	X	X	X	–	X	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	X	X
Mountain																							
Ariz.	X	X	X	–	X	X	X	X	X	–	–	–	–	X	X	X	–	X	X	–	–	X	X
Colo.	X	X	X	–	X	X	–	X	–	X	–	X	Blood alcohol	X	–	–	–	X	–	–	–	X	X
Ida.	X	–	X	–	X	X	X	X	–	X	X	X	Forensic alcohol	X	–	X	–	X	X	–	–	X	X
Mont.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
Nev.	X	X	–	–	X	X	–	–	–	–	–	–	–	X	X	–	–	X	X	–	–	–	–
N.M.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	X	X	–	–	X	X
Utah	X	–	X	–	X	X	X	X	–	X	X	–	–	X	–	X	–	X	X	–	–	X	X
Wyo.	X	–	X	–	X	–	X	X	–	–	–	–	–	–	–	X	–	X	–	–	–	X	X
Pacific																							
Alaska	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	X	X
Cal.	X	X	X	X	X	X	X	X	–	–	–	–	–	X	X	X	X	X	X	X	X	X	X
Hawaii	–	–	–	–	X	–	–	–	–	–	–	–	–	X	–	–	–	X	–	–	–	X	X
Ore.	X	–	–	–	X	–	–	–	–	X	–	–	–	–	X	X	–	X	X	–	–	X	X
Wash.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Territories																							
Guam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	X	X	X	–	X	X	X	X	–	–	–	–	Blood bank	–	X	–	X	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 4-56
XIII. LABORATORY IMPROVEMENT PROGRAM
B. Public Health Laboratories

Lab & Reg.	1. No. Labs in State	2. No. Labs Lic./Reg./App. Cert. By State	3. No. by LIP				4. Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
			Lic.	Reg.	App.	Cert.	
Total	**397**	**265**	**44**	**26**	**77**	**122**	
Average	9.9	9.1	7.3	6.5	5.5	20.3	
New England	**11**	**8**	**–**	**8**	**5**	**–**	
Conn.	8	8	–	8	5	–	–
Mass.	–	–	–	–	–	–	Div. of Hospital and Ambulatory Care, MDPH
Me.	–	–	–	–	–	–	–
N.H.	1	–	–	–	–	–	–
R.I.	1	–	–	–	–	–	–
Vt.	1	–	–	–	–	–	–
Middle Atlantic	**3**	**2**	**2**	**–**	**–**	**–**	
N.J.	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	3	2	2	–	–	–	–
East North Central	**115**	**112**	**13**	**–**	**20**	**68**	
Ill.	13	10	–	–	8	–	–
Ind.	67	67	–	–	–	67	–
Mich.	13	13	13	–	–	–	–
Ohio	13	13	–	–	12	1	–
Wisc.	9	9	–	–	–	–	Wisc. Div. of Health, Div. of Laboratory Certification
West North Central	**27**	**8**	**–**	**–**	**15**	**2**	
Ia.	–	–	–	–	–	–	–
Kans.	3	2	–	–	2	–	–
Minn.	5	–	–	–	–	–	Division of Health Facilities, Minn. Dept. of Health
Mo.	8	1	–	–	8	2	–
Nebr.	–	–	–	–	–	–	Department of Agriculture
N.D.	–	–	–	–	–	–	–
S.D.	11	5	–	–	5	–	–
South Atlantic	**40**	**11**	**–**	**9**	**9**	**–**	
Del.	1	–	–	–	–	–	–
D.C.	2	1	–	–	–	–	–
Fla.	9	9	–	9	9	–	–
Ga.	–	–	–	–	–	–	–
Md.	9	–	–	–	–	–	–
N.C.	–	–	–	–	–	–	N.C. Division of Facility Services
S.C.	8	1	–	–	–	–	Medicare certification is responsibility of Division of Licensing and Certification in DHEC.
Va.	10	–	–	–	–	–	–
W. Va.	1	–	–	–	–	–	–
East South Central	**95**	**7**	**–**	**–**	**12**	**–**	
Ala.	9	–	–	–	5	–	–
Ky.	75	3	–	–	3	–	Division of Licensure and Regulation certifies labs.
Miss.	5	4	–	–	4	–	–
Tenn.	6	–	–	–	–	–	–
West South Central	**6**	**29**	**11**	**–**	**5**	**–**	
Ark.	–	–	–	–	–	–	–
La.	–	–	11	–	–	–	–
Okla.	6	5	–	–	5	–	–
Tex.	–	24	–	–	–	–	Licensing and Certification Bureau, Tex. Dept. of Health
Mountain	**45**	**38**	**12**	**9**	**11**	**9**	
Ariz.	14	12	12	–	–	–	–
Colo.	9	9	–	–	–	9	–
Ida.	7	7	–	7	7	–	–
Mont.	2	2	–	2	–	–	–
Nev.	4	4	–	–	–	–	–
N.M.	3	3	–	–	3	–	Licensing and Certification Section of Health Serv. Div.
Utah	6	1	–	–	1	–	–
Wyo.	–	–	–	–	–	–	–
Pacific	**48**	**45**	**2**	**–**	**–**	**43**	
Alaska	3	–	–	–	–	–	–
Cal.	39	39	–	–	–	39	–
Hawaii	4	4	–	–	–	4	–
Ore.	2	2	2	–	–	–	–
Wash.	–	–	–	–	–	–	–
Territories	**7**	**5**	**4**	**–**	**–**	**–**	
Guam	2	–	–	–	–	–	HEW
P.R.	4	4	4	–	–	–	–
V.I.	1	1	–	–	–	–	–

Table 4-56
XIII. LABORATORY IMPROVEMENT PROGRAM
B. Public Health Laboratories — Continued

Lab & Region	Activity of Laboratory Improvement Program Staff																							
	5. Proficiency Testing													6. Field Visits								7	8
					Immunology									LIP Programs				Other Programs					
	Diag. Bact.	Mycology	Parasitology	Virology	Syphilis Serology	Non-Syphilis Serology	Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dairy/Food	Other	Cert.	Lic.	App.	Other	Cert.	Lic.	App.	Other	Trng	Consult
New England																							
Conn.	X	X	X	X	X	X	X	X	–	X	X	X	–	–	X	X	X	–	X	X	–	X	X
Mass.	X	–	–	–	X	X	–	X	–	–	–	–	Immunohematology	–	–	X	–	–	–	X	–	X	X
Me.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	X	X	X	–	X	X	X	X	–	X	–	X	–	–	–	–	–	–	–	–	–	–	–
Vt.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Middle Atlantic																							
N.J.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	X	X	X	–	X	X	X	X	–	–	–	–	–	–	X	X	–	X	–	–	–	X	X
East North Central																							
Ill.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
Ind.	–	–	–	–	–	–	–	–	–	–	–	X	–	X	–	–	–	–	–	–	–	X	X
Mich.	X	X	X	–	X	–	X	X	–	–	–	–	–	X	X	–	–	X	–	–	–	–	X
Ohio	X	X	X	–	X	X	X	X	–	X	–	X	Alcohol tests	–	–	X	–	–	–	–	–	X	X
Wisc.	X	X	X	–	X	X	X	X	–	–	–	X	–	X	–	–	–	–	–	–	–	X	X
West North Central																							
Ia.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	X
Kans.	–	–	–	–	X	–	–	–	–	–	–	X	–	–	–	X	–	–	–	–	–	X	X
Minn.	X	X	–	–	X	X	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
Mo.	–	–	–	–	X	–	–	–	–	–	–	X	PKU	X	–	X	–	X	–	–	–	X	X
Nebr.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	X	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
South Atlantic																							
Del.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
D.C.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	X	–	–	–	–	X	X
Ga.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–
N.C.	X	X	X	–	X	X	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	X	X
S.C.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
Va.	–	–	–	–	X	–	–	–	–	–	–	X	–	–	–	X	–	–	–	–	–	X	X
W. Va.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–
East South Central																							
Ala.	X	–	X	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	X	X
Ky.	X	–	–	–	X	–	X	X	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–
Miss.	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	X	–
West South Central																							
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	X	–	X	–	X	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	X	–	–	–	–	–	–	X	–	–	–	X	–	–	–	–	–	X	X
Tex.	X	X	X	–	X	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	X	X
Mountain																							
Ariz.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	X	X
Colo.	X	X	X	–	X	X	–	–	–	X	–	X	–	X	–	–	–	–	–	–	–	X	X
Ida.	X	X	X	X	X	X	X	–	–	X	X	X	Forensic alcohol	–	–	X	–	X	–	–	–	X	X
Mont.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X
Nev.	X	X	–	–	X	X	–	–	–	X	–	X	–	X	–	–	–	–	–	–	–	–	–
N.M.	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	X	–
Utah	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	X	X
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific																							
Alaska	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X
Cal.	X	X	X	X	X	X	X	X	–	–	–	–	–	X	–	X	X	X	X	X	X	X	X
Hawaii	–	–	–	–	X	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	X	X
Ore.	X	–	–	–	X	–	–	–	–	X	–	–	–	–	X	X	–	X	X	–	–	X	X
Wash.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Territories																							
Guam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	X	X	X	–	X	X	X	X	–	–	–	–	Blood bank	–	X	–	X	–	–	–	–	–	–
V.I.	X	X	X	–	X	X	–	–	X	X	X	X	–	–	–	–	–	–	–	–	–	–	–

Table 4-57
XIII. LABORATORY IMPROVEMENT PROGRAM
C. Dairy and Food Laboratories

Lab & Reg.	1 No. Labs in State	2 No. Labs Lic./Reg./App./ Cert. by State	3 No. by LIP				4 Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
			Lic.	Reg.	App.	Cert.	
Total	**372**	**535**	**54**	**–**	**237**	**179**	
Average	16.9	18.4	18.0	–	18.2	14.9	–
New England	**31**	**73**	**2**	**–**	**71**	**45**	
Conn.	26	26	–	–	26	–	–
Mass.	–	45	–	–	45	45	Div. Food & Drugs, MDPH
Me.	3	–	–	–	–	–	Department of Agriculture
N.H.	–	–	–	–	–	–	–
R.I.	2	2	2	–	–	–	–
Vt.	–	–	–	–	–	–	–
Middle Atlantic	**–**	**–**	**–**	**–**	**–**	**–**	
N.J.	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–
East North Central	**126**	**179**	**–**	**–**	**60**	**14**	
Ill.	–	39	–	–	39	–	–
Ind.	–	14	–	–	–	14	–
Mich.	–	–	–	–	–	–	Mich. Dept. of Agriculture
Ohio	21	21	–	–	21	–	–
Wisc.	105	105	–	–	–	–	Wisc. Div. of Health, Section of Laboratory Certification
West North Central	**47**	**48**	**–**	**–**	**5**	**6**	
Ia.	31	31	–	–	–	–	Department of Agriculture
Kans.	11	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–
Mo.	–	12	–	–	–	6	–
Nebr.	–	–	–	–	–	–	Department of Agriculture
N.D.	5	5	–	–	5	–	–
S.D.	–	–	–	–	–	–	–
South Atlantic	**73**	**87**	**–**	**–**	**56**	**39**	
Del.	1	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–
Fla.	40	–	–	–	–	8	State Department of Agriculture and Consumer Services
Ga.	–	–	–	–	–	–	–
Md.	–	15	–	–	–	15	–
N.C.	–	39	–	–	39	–	–
S.C.	15	7	–	–	–	7	–
Va.	17	17	–	–	17	–	–
W. Va.	–	9	–	–	–	9	–
East South Central	**72**	**87**	**46**	**–**	**5**	**67**	
Ala.	9	9	–	–	–	9	–
Ky.	–	30	–	–	–	30	–
Miss.	6	5	–	–	5	–	–
Tenn.	57	43	46	–	–	28	–
West South Central	**–**	**37**	**6**	**–**	**30**	**–**	
Ark.	–	–	–	–	–	–	–
La.	–	7	6	–	–	–	–
Okla.	–	6	–	–	6	–	–
Tex.	–	24	–	–	24	–	–
Mountain	**13**	**17**	**–**	**–**	**10**	**6**	
Ariz.	–	–	–	–	–	–	–
Colo.	7	7	–	–	–	6	–
Ida.	–	7	–	–	7	–	–
Mont.	–	–	–	–	–	–	Dept. of Livestock
Nev.	2	2	–	–	2	–	–
N.M.	4	1	–	–	1	–	FDA
Utah	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	Dept. of Agriculture
Pacific	**5**	**5**	**–**	**–**	**–**	**–**	
Alaska	1	1	–	–	–	–	Dept. of Natural Resources – Div. of Agriculture
Cal.	–	–	–	–	–	–	–
Hawaii	4	4	–	–	–	–	–
Ore.	–	–	–	–	–	–	Dept. of Agriculture
Wash.	–	–	–	–	–	–	–
Territories	**5**	**2**	**–**	**–**	**–**	**2**	
Guam	2	–	–	–	–	–	–
P.R.	3	2	–	–	–	2	–
V.I.	–	–	–	–	–	–	–

Table 4-57
XIII. LABORATORY IMPROVEMENT PROGRAM
C. Dairy and Food Laboratories — Continued

Lab & Region	Activity of Laboratory Improvement Program Staff										
	5	6. Field Visits								7	8
	Proficiency Testing	LIP Programs				Other Programs				Training	Consult.
		Cert.	Lic.	App.	Other	Cert.	Lic.	App.	Other		
New England											
Conn.	×	–	–	×	–	–	–	–	–	×	×
Mass.	–	–	–	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–	–	–
R.I.	×	–	×	–	–	–	–	–	–	×	×
Vt.	–	–	–	×	–	–	–	–	–	×	×
Middle Atlantic											
N.J.	×	×	×	–	–	×	×	–	–	×	×
N.Y.	–	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–	–	–
East North Central											
Ill.	×	–	–	×	–	–	–	–	–	×	×
Ind.	×	–	–	×	–	–	–	–	–	×	×
Mich.	–	–	–	–	–	–	–	–	–	–	–
Ohio	×	×	–	–	–	–	–	×	–	–	×
Wisc.	×	×	–	–	–	×	–	–	–	×	×
West North Central											
Ia.	–	×	–	–	–	–	–	–	–	–	–
Kans.	×	–	–	–	–	–	–	×	–	–	×
Minn.	–	–	–	–	–	–	–	–	–	–	–
Mo.	×	–	–	–	–	×	–	–	–	×	×
Nebr.	–	–	–	–	–	–	–	–	–	–	–
N.D.	×	–	–	×	–	–	–	–	–	×	×
S.D.	–	–	–	–	–	–	–	–	–	–	–
South Atlantic											
Del.	–	–	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–	–	–
Fla.	×	×	–	–	–	–	–	–	–	×	×
Ga.	–	–	–	–	–	–	–	–	–	–	–
Md.	×	×	–	–	–	–	–	–	–	–	–
N.C.	×	–	–	×	–	–	–	–	–	–	×
S.C.	×	×	–	–	–	–	–	–	–	×	×
Va.	×	–	–	×	–	–	–	–	–	×	×
W. Va.	×	×	–	–	–	–	–	–	–	×	–
East South Central											
Ala.	×	×	–	–	–	–	–	–	–	×	×
Ky.	×	×	–	–	–	–	–	–	–	×	–
Miss.	–	–	–	×	–	–	–	–	–	–	–
Tenn.	×	×	–	–	–	–	×	–	–	×	×
West South Central											
Ark.	–	–	–	–	–	–	–	–	–	–	–
La.	×	×	–	–	–	–	–	–	–	×	×
Okla.	×	–	–	×	–	–	–	×	–	×	×
Tex.	×	–	–	–	–	–	–	–	–	–	–
Mountain											
Ariz.	–	–	–	–	–	–	–	–	–	–	–
Colo.	×	×	–	–	–	×	–	–	–	×	×
Ida.	×	×	–	×	–	×	–	×	–	×	×
Mont.	–	–	–	–	–	–	–	–	–	–	–
Nev.	×	×	×	–	–	–	–	–	–	–	–
N.M.	×	–	–	–	–	×	–	–	–	×	×
Utah	–	–	–	–	–	–	–	–	–	–	–
Wyo.	×	–	–	×	–	×	–	–	–	×	×
Pacific											
Alaska	–	–	–	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–	×
Ore.	×	×	×	–	–	×	×	–	–	×	×
Wash.	–	–	–	–	–	–	–	–	–	–	–
Territories											
Guam	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	×	–	–	–	–	×	×
V.I.	–	–	–	–	–	–	–	–	–	–	–

Table 4-58
XIII. LABORATORY IMPROVEMENT PROGRAM
D. Water Laboratories

Lab & Region	1. No. Labs in State	2. No. Water Laboratories in State				3. Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
		Lic.	Reg.	App.	Cert.	
Total	**2,690**	**4**	**–**	**1,872**	**597**	
Average	84.1	4.0	–	81.4	33.2	–
New England	**121**	**4**	**–**	**102**	**18**	
Conn.	82	–	–	82	–	
Mass.	–	–	–	–	–	Mass. Dept. of Environmental & Quality Engineering
Me.	35	–	–	20	18	–
N.H.	–	–	–	–	–	–
R.I.	4	4	–	–	–	–
Vt.	–	–	–	–	–	–
Middle Atlantic	**401**	**–**	**–**	**274**	**127**	
N.J.	127	–	–	–	127	–
N.Y.	–	–	–	–	–	--
Pa.	274	–	–	274	–	--
East North Central	**870**	**–**	**–**	**472**	**159**	
Ill.	–	–	–	77	–	Micro: State Health Dept.; Chem.: State Environ. Protection Agency
Ind.	55	–	–	–	55	–
Mich.	145	–	–	120	–	Bureau Environmental and Occupational Health and State Lab.
Ohio	566	–	–	275	–	–
Wisc.	104	–	–	–	104	Wisc. Div. of Health, Section of Laboratory Certification
West North Central	**52**	**–**	**–**	**34**	**75**	
Ia.	24	–	–	24	–	–
Kans.	–	–	–	–	19	–
Minn.	–	–	–	–	–	–
Mo.	–	–	–	–	43	–
Nebr.	13	–	–	–	13	–
N.D.	10	–	–	10	–	–
S.D.	5	–	–	–	–	EPA, Denver, Colorado
South Atlantic	**299**	**–**	**–**	**175**	**32**	
Del.	8	–	–	7	7	–
D.C.	–	–	–	–	–	–
Fla.	170	–	–	74	–	–
Ga.	–	–	–	–	–	–
Md.	45	–	–	–	25	–
N.C.	–	–	–	–	–	Region IV EPA, Atlanta
S.C.	–	–	–	–	–	Bureau of Field and Analytical Services, DHEC.
Va.	76	–	–	68	–	–
W. Va.	–	–	–	26	–	–
East South Central	**120**	**–**	**–**	**16**	**82**	
Ala.	15	–	–	–	15	–
Ky.	–	–	–	–	28	–
Miss.	16	–	–	16	–	–
Tenn.	89	–	–	–	39	–
West South Central	**–**	**–**	**–**	**69**	**13**	
Ark.	–	–	–	–	–	–
La.	–	–	–	–	13	–
Okla.	–	–	–	13	–	–
Tex.	–	–	–	56	–	–
Mountain	**150**	**–**	**–**	**64**	**90**	
Ariz.	23	–	–	23	–	–
Colo.	25	–	–	–	25	–
Ida.	–	–	–	–	23	–
Mont.	29	–	–	8	21	–
Nev.	20	–	–	3	–	–
N.M.	23	–	–	23	–	–
Utah	23	–	–	–	21	–
Wyo.	7	–	–	7	–	EPA
Pacific	**666**	**–**	**–**	**666**	**–**	
Alaska	–	–	–	–	–	–
Cal.	626	–	–	626	–	–
Hawaii	7	–	–	7	–	–
Ore.	33	–	–	33	–	–
Wash.	–	–	–	–	–	–
Territories	**11**	**–**	**–**	**–**	**1**	
Guam	3	–	–	–	–	Guam Environmental Protection Agency
P.R.	8	–	–	–	1	–
V.I.	–	–	–	–	–	–

Table 4-58
XIII. LABORATORY IMPROVEMENT PROGRAM
D. Water Laboratories — Continued

Lab & Region	4. No. Water Testing Laboratories in Laboratory Improvement Program															
	Licensed				Registered				Approved				Certified			
	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total
Total	**4**	**—**	**—**	**4**	**—**	**—**	**—**	**—**	**1,076**	**374**	**419**	**1,869**	**400**	**43**	**133**	**576**
Average	4	—	—	4	—	—	—	—	48.9	62.3	46.6	81.3	28.6	7.2	19.0	38.4
New England	**4**	**—**	**—**	**4**	**—**	**—**	**—**	**—**	**24**	**17**	**61**	**102**	**13**	**—**	**5**	**18**
Conn.	—	—	—	—	—	—	—	—	11	17	54	82	—	—	—	—
Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—	13	—	7	20	13	—	5	18
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	4	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**274**	**—**	**—**	**274**	**28**	**9**	**90**	**127**
N.J.	—	—	—	—	—	—	—	—	—	—	—	—	28	9	90	127
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	274	—	—	274	—	—	—	—
East North Central	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**385**	**87**	**—**	**472**	**159**	**—**	**—**	**159**
Ill.	—	—	—	—	—	—	—	—	77	—	—	77	—	—	—	—
Ind.	—	—	—	—	—	—	—	—	—	—	—	—	55	—	—	55
Mich.	—	—	—	—	—	—	—	—	120	—	—	120	—	—	—	—
Ohio	—	—	—	—	—	—	—	—	188	87	—	275	—	—	—	—
Wisc.	—	—	—	—	—	—	—	—	—	—	—	—	104	—	—	104
West North Central	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**34**	**—**	**—**	**34**	**51**	**17**	**7**	**75**
Ia.	—	—	—	—	—	—	—	—	24	—	—	24	—	—	—	—
Kans.	—	—	—	—	—	—	—	—	—	—	—	—	—	17	2	19
Minn.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	—	—	—	—	43	—	—	43
Nebr.	—	—	—	—	—	—	—	—	—	—	—	—	8	—	5	13
N.D.	—	—	—	—	—	—	—	—	10	—	—	10	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**146**	**1**	**28**	**175**	**25**	**—**	**—**	**25**
Del.	—	—	—	—	—	—	—	—	1	1	5	7	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—	74	—	—	74	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	—	—	—	—	—	—	—	—	25	—	—	25
N.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Va.	—	—	—	—	—	—	—	—	45	—	23	68	—	—	—	—
W. Va.	—	—	—	—	—	—	—	—	26	—	—	26	—	—	—	—
East South Central	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**15**	**—**	**1**	**16**	**78**	**4**	**—**	**82**
Ala.	—	—	—	—	—	—	—	—	—	—	—	—	15	—	—	15
Ky.	—	—	—	—	—	—	—	—	—	—	—	—	24	4	—	28
Miss.	—	—	—	—	—	—	—	—	15	—	1	16	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—	—	—	—	39	—	—	39
West South Central	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**69**	**—**	**—**	**69**	**—**	**—**	**—**	**—**
Ark.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
La.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	13	—	—	13	—	—	—	—
Tex.	—	—	—	—	—	—	—	—	56	—	—	56	—	—	—	—
Mountain	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**35**	**8**	**20**	**63**	**46**	**13**	**31**	**90**
Ariz.	—	—	—	—	—	—	—	—	14	—	9	23	—	—	—	—
Colo.	—	—	—	—	—	—	—	—	—	—	—	—	10	6	9	25
Ida.	—	—	—	—	—	—	—	—	—	—	—	—	12	2	9	23
Mont.	—	—	—	—	—	—	—	—	—	8	—	8	21	—	—	21
Nev.	—	—	—	—	—	—	—	—	2	—	—	2	—	—	—	—
N.M.	—	—	—	—	—	—	—	—	12	—	11	23	—	—	—	—
Utah	—	—	—	—	—	—	—	—	—	—	—	—	3	5	13	21
Wyo.	—	—	—	—	—	—	—	—	7	—	—	7	—	—	—	—
Pacific	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**94**	**261**	**309**	**664**	**—**	**—**	**—**	**—**
Alaska	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—	54	260	307	621	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	7	1	2	10	—	—	—	—
Ore.	—	—	—	—	—	—	—	—	33	—	—	33	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Territories	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 4-58
XIII. LABORATORY IMPROVEMENT PROGRAM
D. Water Laboratories -- Continued

Lab & Region	Activity of Laboratory Improvement Program Staff											
	5. Proficiency Testing		6. Field Visits								7.	8.
			LIP Program				Other Program					
	Water Microbiology	Water Chemistry	Cert.	Lic.	App.	Other	Cert.	Lic.	App.	Other	Trng	Consult
New England												
Conn.	X	X	–	–	X	–	–	–	–	–	X	X
Mass.	–	–	–	–	–	–	–	–	–	–	–	–
Me.	X	X	X	–	X	–	–	–	–	–	X	X
N.H.	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	X	–	X	X	–	–	–	–	–	–	X	X
Vt.	–	–	–	–	–	–	–	–	–	–	–	–
Middle Atlantic												
N.J.	X	X	–	–	–	–	X	–	–	–	X	X
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	X	–	–	–	–
East North Central												
Ill.	–	–	–	–	X	–	–	–	–	–	X	X
Ind.	–	–	–	–	X	–	–	–	–	–	X	X
Mich.	–	–	–	–	–	–	–	–	–	–	–	–
Ohio	X	X	–	–	X	–	–	–	–	–	X	–
Wisc.	–	–	X	–	–	–	–	–	–	X	X	X
West North Central												
Ia.	–	–	–	–	X	–	–	–	–	–	–	–
Kans.	–	X	X	–	–	–	–	–	–	–	–	X
Minn.	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	X	–	–	–	X	–	–	–	X	X
Nebr.	–	–	X	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	X	–	–	–	–	–	X	X
S.D.	–	–	–	–	–	–	–	–	–	–	–	–
South Atlantic												
Del.	–	–	X	–	X	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–	–	–	–
Fla.	–	–	X	–	–	–	–	–	–	–	X	X
Ga.	–	–	–	–	–	–	–	–	–	–	–	–
Md.	X	–	X	–	–	–	–	–	–	–	X	X
N.C.	–	–	–	–	–	–	–	–	–	–	–	–
S.C.	–	–	–	–	–	–	–	–	–	–	–	–
Va.	–	–	–	–	–	–	–	–	–	–	–	–
W. Va.	–	–	–	–	X	–	–	–	–	–	X	X
East South Central												
Ala.	X	–	X	–	–	–	–	–	–	–	X	X
Ky.	–	–	X	–	–	–	–	–	–	–	–	–
Miss.	–	–	–	–	X	–	–	–	–	–	–	–
Tenn.	–	X	X	–	–	–	–	–	–	–	X	X
West South Central												
Ark.	–	–	–	–	–	–	–	–	–	–	–	–
La.	X	–	X	–	–	–	–	–	–	–	X	X
Okla.	–	–	–	–	X	–	–	–	X	–	X	X
Tex.	–	–	–	–	X	–	–	–	–	–	X	X
Mountain												
Ariz.	–	–	–	–	X	–	–	–	–	–	–	–
Colo.	X	X	X	–	–	–	X	–	–	–	X	X
Ida.	–	X	X	–	–	–	–	–	–	–	–	X
Mont.	–	X	X	–	X	–	–	–	–	–	X	X
Nev.	–	X	X	X	–	X	–	–	–	–	–	–
N.M.	–	–	–	–	X	–	–	–	–	–	X	X
Utah	X	X	X	–	–	–	–	–	X	–	X	X
Wyo.	–	–	–	–	X	–	–	–	X	–	X	X
Pacific												
Alaska	–	–	–	–	–	–	–	–	–	–	–	–
Cal.	X	X	–	–	X	X	–	–	–	–	X	X
Hawaii	X	–	–	–	X	–	–	–	X	–	X	X
Ore.	X	–	–	–	X	–	–	–	–	–	X	X
Wash.	–	–	–	–	–	–	–	–	–	–	–	–
Territories												
Guam	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	X	–	–	–	–	–	–	–	X	X
V.I.	–	–	–	–	–	–	–	–	–	–	–	–

Table 4-59
XIII. LABORATORY IMPROVEMENT PROGRAM
E. Other Laboratories

Lab	Program Activity
Alaska	Certification of chemistry laboratories for analysis of Breathalyzer ampoules utilized in breath alcohol testing. (1 laboratory certified in state, one annual site visit).
Conn.	Prepare and administer examinations to approve laboratory directors for dairy, food, and water.
Fla.	Implied Consent — permits issued to 3,360 alcohol breath test (law enforcement) technicians and 68 chemists and technologists for blood alcohol analysis; inspections and certification of 704 breath testing machines in 324 law enforcement agencies.
Ida.	Voluntary clearing house. Job applicants and positions available.
Ind.	All Bureau laboratories participate in proficiency testing programs sponsored by various Federal agencies and professional organizations: (a) dairy and food microbiology, (b) food chemistry, (c) clinical microbiology, (d) virology, (e) serology, and (f) blood lead.
Kans.	Lab. certifies law enforcement agencies for breath alcohol. Presently 34 agencies and 369 operators certified. Lab. provides standards, proficiency testing samples, field visits, consultation, and training.
Md.	Shellfish and overlying shellfish waters.
Mass.	Resource to Advisory Committee on Clinical Laboratory in implementation of Laboratory Licensing Law.
Mont.	Inspected two city/county air quality laboratories and prepared written critiques.
N.M.	Internal analytical quality control program. Activities: (1) monitor precision and accuracy of analytical methods, (2) monitor performance in "check-testing" and "proficiency testing" program to which laboratory subscribes.
Ore.	Beginning telelecture program.
Utah	CDC technical consultation contract — Consultation to clinical laboratories using on-site P.T. in the areas of clinical chemistry, bacteriology, and parasitology.
W. Va.	Continuing education program for 1977-78 included presentation of 14 workshops attended by 497 people.

Table 4-60
XIV. BIOLOGICS, REAGENTS, AND MEDIA PRODUCED FOR DISTRIBUTION

Lab	Number FTE's	Biologics		Reagents	Media	Materials Produced for Distribution
		Human	Lab			
Ariz.	<1	—	X	—	X	MacConkey agar plates T-soy broth Thioglycollate medium
Cal.	—	—	X	X	—	Bacterial antigens: *Salmonella paratyphi A* *Salmonella paratyphi B* *Salmonella typhi "O"* *Salmonella typhi "H"* *Brucella abortus* *Francisella tularensis* Immune sera: *Brucella abortus* *Salmonella paratyphi A* *Salmonella paratyphi B* *Salmonella typhi "H"* *Salmonella typhi "O"* *Francisella tularensis* Anti-sheep hemolysin
Colo.	3	—	—	X	X	Jembec
Conn.	9	—	X	—	X	Kits for isolation of Group A streptococcus from nasopharyngeal specimens, 131,772 units; kits for the identification of *Bordetella pertussis*, 300 units; VDRL stock antigen, 1,730 units of 5.2 ml each; VDRL buffered saline, 1,730 units of 5.2 ml each; controls for syphilis serology, 118 units.
D.C.	.7	—	—	X	X	Special sickle cell reagent, enteric media.
Ga.	4	—	—	—	X	Improved Thayer-Martin media.
Ill.	10	—	—	X	X	Alcohol standard solution used for calibration of breath testing equipment.
Ia.	5	—	—	X	X	The media production unit serves the various diagnostic and environmental microbiology units of the Univ. Hygenic Lab. Approximately 50% of the media produced is by contract for the Univ. of Iowa hospital microbiology lab. A large range of items are produced from primary plating and enrichment media to a large number of specific media for biochemical identification of almost anything capable of being cultured.
La.	1	—	—	—	X	Modified Thayer-Martin
Mass.	51	X	X	—	—	Human albumin DTP vaccine DT vaccine Human immune globulin Rho immune globulin Tetanus immune globulin Td toxoids Tetanus toxoid, adsorbed Typhoid vaccine Diphtheria antitoxin Tetanus antitoxin Schick test outfit
Mich.	61	X	—	—	—	Human blood derivatives: Antihemophilic factor (factor VIII) Immune serum globulin Normal serum albumin Bacterial: Typhoid vaccine Tetanus toxoid adsorbed Diphtheria and tetanus toxoids adsorbed Diphtheria and tetanus toxoids and pertussis vaccine combined adsorbed Tetanus and diphtheria toxoids adsorbed (adult) Pertussis vaccine adsorbed Diphtheria and tetanus toxoids and poliomyelitis vaccine combined adsorbed Diphtheria toxoid adsorbed
Minn.	1	—	—	—	X	71,500 Thayer-Martin plates for GC screening program

Table 4-60
XIV. BIOLOGICS, REAGENTS, AND MEDIA PRODUCED FOR DISTRIBUTION — Continued

Lab	Number FTE's	Biologics		Reagents	Media	Materials Produced for Distribution
		Human	Lab			
Mont.	—	—	—	X	X	Jembec plates with MTM medium. Various transport media for all types of specimens.
N.H.	0.5	—	—	X	X	—
N.M.	4	—	—	X	X	Polyvinyl alcohol 10% formalin Buffered glycerol saline 0.6 % NaCl saline Sterile collection bottle with sodium thiosulfate Sterile collection bottle with sodium phosphate Thayer-Martin (modified) PAI Jones-Kendrick (charcoal) Tryptose phosphate broth (buffered) with gelatin
N.C.	5	—	—	X	X	—
N.D.	1	—	—	X	X	Thayer-Martin (modified), Jembec plates
Ohio	3.25	—	—	—	X	Thayer-Martin plates.
S.C.	0.2	—	—	X	X	Media and reagents supplied to Environmental Quality Control laboratories in DHEC — about 47 varieties of media for isolation and identification of bacteria from water samples, and 20 separate reagents, stains and solutions.
S.D.	1	—	—	—	X	Loeffler's slants
Tenn.	12	—	X	X	X	Isovitalex Saline, physiological Thayer-Martin plate media Transgrow system media VCN Gonopak media Jones-Kendrick medium OADC media Streptococcus medium
Tex.	—	X	X	—	—	*N. gonorrhoeae* transport medium Lowenstein-Jensen medium FTA-ABS sorbent VDRL antigen and saline Sheep blood and cells Bacterial agglutinating antigens D-T pediatric, D-T-P, diphtheria toxoid Schick test toxin and control Smallpox vaccine Tetanus-diphtheria adult Tetanus toxoid Typhoid vaccine Silver nitrate solution
Vt.	1	—	—	X	X	—
Wash.	3	—	X	X	X	Tabco$_2$ — GC media Thayer-Martin plates
W. Va.	4	—	—	X	X	Transgrow (bottles and plates) Typhoid preservative (buffered glycerol NaCl) PVA fixative (2 oz. bottles) TB bottles (50 mg of Na_2CO_3/bottle) Parasite bottles (1 and 2 oz.) Influenza preservative (tryptose PO_4 + 0.5/gelatin) Gastric lavage (1.5 ml of 40% Na_2HPO_4) 10% formalin (2 oz. bottles) Water sample bottles (4 oz. containing 0.01 g. $Na_2S_2O_3$) Blood vials (syphilis serology)

Table 4-61
XV. RESEARCH AND DEVELOPMENT
A. Basic Research

Lab	Titles of Research Projects	Number of Positions	Funding Support			
			Federal Grant	Contract	State Funds	Other Funds
Cal.	Immunology of Viral Diseases	9.5	197,800			
	Electron Microscopic Studies	1.8	43,215			
	Studies of Naegleria Infections	2.0	49,355			
	Cancer Virus Studies	4.0		101,910		
	Photochemical Inactivation of Viruses	1.8		62,480		
	Serologic Studies of Multiple Sclerosis	2.25				64,615
	Improvement and Evaluation of Sulfate Analysis Methods	2.5	51,993			
	Calibration of Particulate Mass Monitors	0.7	22,467			
Ida.	HEMB — Epidemiological Studies	9.0		192,000		
Ia.	Developing Methods for Separation, Identification and Quantification of Complex Hydrocarbons Found in Coal Liquifaction Plants.	.25				X
Mass.	Biologics Production	—			X	
Okla.	Virus in Treated Sewage	.4	X		X	
	Viral Titers in Transplant Patients	.2			X	

Table 4-62
XV. RESEARCH AND DEVELOPMENT
B. Applied Research

Lab	Titles of Research Projects	Number of Positions	Funding Support			
			Federal Grant	Contract	State Funds	Other Funds
Alaska	Rabies Virus-Tissue Punch				X	
	IHNV Vaccine Development				5,000	
Cal.	Water Virology Project	3.0			100,000	
	Marsupial Cytology Studies	1.0	2,000			
	Conf. on Methods in Air Pollution Studies	0.3	17,200			
Conn.....	Extraction of Drugs from Biofluids and Tissues with XAD-2 Resin	4			X	
	Isolation of *V. parahemolyticus* from Mussels					
	Isolation and Identification of *Yersinia enterocolitis* from Stools					
	Starch Hydrolysis as a Basis for Differentiating *N. gonorrhoeae* from *N. meningitidis*					
Fla.	SW Wastewater Treatment Plant Virus Monitoring Project	4		X		
	EPA—Monitoring for Pathogenic Naegleria	4	X			
	Rockefeller-Virus Fate in Waste Water Used for Cypress Wetlands Recharge	2				X
Ga.	Preparation of Acid-fast Microscopy Smears for Proficiency Testing				X	
	Quality Control Distribution of Serotypes of the *Mycobacterium avium* Complex in Georgia				X	
Ia.	Legionnaires' Disease	1				X
	Nonpoint Source Pollution Study	1				X
	Arbovirus	.5				X
	Stream Water Quality Survey	1.5				X
	Insulation Formaldehyde Emission	.25				X
La.	Stabliization of Microorganisms in Water					
Mass.	Plasma Screening Program	2		X		
Pa.	Rapid Diagnosis of HSV	2			X	
	Legionnaires' Disease Research	2			X	

Table 4-63
XV. RESEARCH & DEVELOPMENT
C. Technical Development

Lab	Titles of Research Projects	Number of Positions	Funding Support			
			Federal Grant	Contract	State Funds	Other Funds
Conn.	Spectrophotometric Determination of Cyanide in Biologic Material Modification Strip Test Yeast Identification	–	–	–	X	–
Okla.	Tuberculosis Specimen Centrifugation	.2			X	

SECTION V
SPECIAL QUESTIONS

Table 5-1
LABORATORY ORGANIZATIONAL STRUCTURE

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1978	Description of Organizational Change
	State Health Department	State Laboratory		
Ala.	01/01/75	01/01/75	—	—
Alaska	08/01/78	08/01/78	—	—
Ariz.	11/01/76	07/20/78	X	Administrative Section has combined the Billing/Reporting and Disease Surveillance/Immunization Units to develop the Statistical Support Unit. Scientific Services Section has deleted the Stores Unit.
Ark.	07/01/77	07/01/77	—	—
Cal.	02/18/77	10/04/77	—	—
Colo.	10/01/76	09/01/76	—	—
Conn.	06/30/78	06/30/78	—	—
Del.	06/01/72	11/01/75	—	—
D.C.	—	08/02/78	—	—
Fla.	07/01/76	01/01/77	X	Central Operations Services Unit, of which the Office of Laboratory Services is a part, was expanded.
Ga.	09/14/77	07/01/78	X	The Laboratory Unit became one of five major sections in the Division of Physical Health in the Department of Human Resources. Previously was a unit in the Epidemiology Section in the Community Health Activity in the Division of Physical Health.
Hawaii	05/30/77	06/30/78	—	—
Ida.	10/21/77	10/21/77	—	—
Ill.	04/01/77	10/07/77	—	—
Ind.	07/01/78	01/06/78	X	As a part of State Agency reorganization clerical personnel placed in a laboratory support center and a laboratory reporting center placed under the Bureau of Management and Service.
Ia.	—	08/01/78	—	—
Kans.	09/30/78	08/31/78	—	—
Ky.	09/01/78	09/01/78	X	Office of Laboratory Services has been made a Division within the Bureau for Health Services responsible directly to the Deputy Commissioner for Public Health.
La.	08/01/77	07/01/77	—	—
Me.	07/01/77	07/01/77	—	—
Md.	07/01/76	01/01/77	—	—
Mass.	1977	03/15/77	—	—
Mich.	09/24/75	10/01/77	—	—
Minn.	05/31/78	01/15/77	—	—
Miss.	10/31/74	10/23/78	X	Parasitology is now included in Unit II. Last Fiscal Year it was a separate cost center.
Mo.	07/01/78	10/01/76	—	—
Mont.	07/01/75	01/26/77	X	Toxic Substances Section (alcohol, drugs) of Chemistry Laboratory was transferred from Department of Health and Environmental Sciences to Department of Justice.
Nebr.	09/01/76	01/01/78	X	Minor reassignment of lab. support duties.
Nev.	07/01/75	03/01/76	—	—
N.H.	06/13/73	06/13/73	—	—
N.J.	09/15/78	09/15/78	X	(1) Rabies moved from Bacteriology to Virology. (2) Creation of Inborn Errors of Metabolism (PKU and hypothyroidism)..

Table 5-1
LABORATORY ORGANIZATIONAL STRUCTURE – Continued

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1978	Description of Organizational Change
	State Health Department	State Laboratory		
N.M.	03/31/78	03/31/78	X	As part of a general state government reorganization, Health and Social Services Dept. was disestablished March 31, 1978, and Health and Environment Dept. was established. The following components of HSSD were reassigned to HED with indicated title changes: Scientific Laboratory System to Scientific Lab. Division; Environmental Improvement Agency to Environmental Improvement Division; State Health Agency to Health Services Division. The former Dept. of Hospitals and Institutions became the Behavioral Health Services Division of Health and Environment Dept. Internal changes were relatively minor; "Divisions" were redesignated as "Bureaus". Scientific Laboratory Div. includes Quality Control, Chemistry, Biological Sciences and Program Support Bureaus.
N.Y.	–	–	–	–
N.C.	12/01/77	01/01/78	X	The responsibility for certification of laboratories performing premarital and prenatal syphilis serology and premarital rubella serology was transferred to the Division of Facility Services – Department of Human Resources effective January 1, 1978.
N.D.	07/01/75	07/19/77	–	–
Ohio	05/15/75	06/20/78	X	Supportive Services reorganized to include all fiscal-budgetary responsibilities. Also, a personnel position was added to the laboratory to handle all managerial functions in this area.
Okla.	09/05/78	09/01/78	X	Media and Glassware Activity now reports directly to the Chief, Laboratory Service.
Ore.	05/01/78	05/01/78	–	–
Pa.	05/20/77	–	–	–
R.I.	09/01/76	09/25/75	–	–
S.C.	06/01/78	06/01/78	–	–
S.D.	07/01/77	07/01/77	–	–
Tenn.	02/01/78	02/01/78	X	Clinical Laboratory Certification and Licensure joined the Division of Laboratory Services.
Tex.	11/01/78	09/01/78	X	Laboratory moved from Health Maintenance deputyship to Preventable Diseases.
Utah	08/03/78	06/30/78	–	–
Vt.	07/01/74	07/01/74	–	–
Va.	07/01/77	07/01/77	–	–
Wash.	08/01/76	03/01/77	–	–
W. Va.	08/01/78	07/01/77	X	Formerly, the State Hygienic Laboratory was placed with the Preventive Medical Services Section of the State Department of Health. Under the new structure the Laboratory is within the Office of Community Health Services. There is no change within the State Hygienic Laboratory.
Wisc.	03/15/76	02/20/78	–	–
Wyo.	1974	1974	–	–
Guam	07/01/76	06/14/78	–	–
P.R.	–	–	–	–
V.I.	–	–	X	Title of Director has changed from Director of Public Health Laboratory Services to Coordinator of Laboratory Services.

Table 5-2
LABORATORY APPLICATIONS OF ELECTRONIC DATA PROCESSING

Lab & Region	Activities Currently Considered Computer Activities in State Labs																
	Diagnostic Reporting																
	Diag. Bact.	Parasitology	Clinical Chem.	Pathology	Env. Micro	Env. Chemistry	LIP	Bio./Rea./ Med. Prod. & Dist.	Workload Statistics	Management Information	Purchasing	Personnel Records	Supply Inventory	Clinical Chem. Calculations	Control of Instruments	Training	Other
New England																	
Conn.	–	–	–	–	–	–	–	–	–	–	–	–	–	X	X	–	–
Mass.	–	–	X	–	–	X	X	–	–	–	X	X	–	–	–	–	All expenditures
Me.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	–	–	–	–	–	–	–	–	–	X	–	X	–	–	–	–	Toxicology
Vt.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Middle Atlantic																	
N.J.	–	–	–	–	–	–	–	–	–	X	–	X	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
East North Central																	
Ill.	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	X
Mich.	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	Watar chemistry calculations
Ohio	–	–	–	–	–	–	–	–	X	–	–	–	–	–	X	X	–
Wisc.	X	–	X	–	–	–	–	–	X	X	–	X	X	X	–	–	Rabies, parts of immunology, bacteriology, pathology, & toxicology. Alse various lab. avaluation programs.
West North Central																	
Ia.	–	–	–	–	–	–	–	–	X	X	X	X	–	–	–	–	–
Kans.	–	–	–	–	X	–	X	–	–	–	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–
N.D.	–	–	–	–	–	X	–	–	–	–	–	–	–	X	X	–	–
S.D.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Atlantic																	
Dal.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–
Fla.	–	–	–	–	–	–	X	–	–	X	–	X	X	–	–	–	–
Ga.	–	–	–	–	–	–	–	X	–	–	–	X	–	–	–	–	Analytical chemistry—toxicology reporting
Md.	–	–	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–
N.C.	–	–	–	X	–	–	–	–	–	–	–	X	–	–	–	–	–
S.C.	–	–	–	–	–	–	–	–	X	X	X	X	–	–	–	–	Billing for lab test fees.
Va.	–	–	X	–	–	X	–	–	X	–	–	X	–	–	X	–	–
W. Va.	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–
East South Central																	
Ala.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ky.	–	–	X	–	–	–	–	–	–	X	–	X	–	X	X	–	–
Miss.	–	–	–	–	–	–	–	–	–	X	–	X	–	X	X	–	–
Tenn.	–	–	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–
West South Central																	
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–	X	X	X	–	–	–	–	–
Tex.	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–
Mountain																	
Ariz.	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–
Colo.	–	–	–	–	–	–	–	–	–	–	X	X	–	–	–	–	–
Ida.	–	–	–	–	–	–	X	–	–	–	X	–	–	X	–	–	Air pollution testing calculetions.
Mont.	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	Environmental chamistry calculations
Nev.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.M.	–	–	–	–	–	–	–	–	X	X	–	–	–	X	–	–	Quelity control charts and standard daviations within Chemistry Bureau.
Utah	–	–	–	–	–	–	–	–	–	X	–	X	–	–	X	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific																	
Alaska	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–
Cal.	–	–	–	–	–	X	X	–	X	X	–	X	–	–	X	–	Raduction of instrumentelly produced data (gamma spectrometry, mess spectrometry, atc.), quality control.
Hewell	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wash.	X	X	–	–	–	X	–	–	X	X	–	–	–	X	–	–	–
Territories																	
Guam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 5-3
SCIENTIFIC SERVICES

Lab & Region	Is Scientific Support Centralized: Decentralized	Is Scientific Support Centralized: Is One Person Responsible	Is Scientific Support Centralized: Is This Person Trained in Scientific Services Mngt.	Functions Included in Scientific Services Section: Glassware Washing	Med. Prep.	Purchasing Supplies	Inventory Supplies	Stockroom	Preventive Maintenance	Animal Care	Records & Reports	Specimen Receipt & Distribution	Outfit Distribution	Housekeeping	Other
New England															
Conn.	–	×	×	×	×	×	×	×	×	×	×	×	×	–	Sterilization of contaminated materials
Mass.	–	×	×	×	×	×	×	×	–	–	×	×	×	×	Control duplication (Xerox, offset press); U.S. Mail, inter and intra laboratory messenger service; shipping and receiving.
Ma.	×	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.H.	–	×	–	×	×	–	×	×	–	×	×	–	×	–	–
R.I.	–	×	×	×	–	×	×	×	×	–	–	×	×	×	–
Vt.	–	×	–	×	×	–	–	×	–	–	–	–	×	–	–
Middle Atlantic															
N.J.	–	×	×	×	×	–	–	×	–	×	–	×	×	–	Maintenance of guns for Immunization Program.
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	–	×	×	–	–	×	×	×	×	–	×	×	×	×	–
East North Central															
Ill.	–	×	–	×	×	×	×	×	×	–	×	×	×	–	–
Ind.	–	×	×	×	×	×	×	×	–	–	–	–	×	–	–
Mich.	–	×	–	×	×	×	×	×	×	–	–	–	×	×	–
Ohio	–	×	–	×	×	×	×	×	×	–	–	×	×	–	–
Wisc.	–	×	×	×	×	×	×	×	×	–	–	–	–	–	–
West North Central															
Ia.	–	×	×	×	×	×	×	×	×	×	×	×	×	–	Carpool maintenance
Kans.	–	×	–	×	×	–	–	–	–	–	–	–	–	–	–
Minn.	–	×	–	×	×	×	×	×	×	×	–	–	–	–	–
Mo.	–	×	×	×	–	–	×	×	×	×	–	–	×	–	–
Nabr.	×	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	×	×	–	–	–	–	–	–	–	–	–	–
S.D.	–	×	×	×	×	×	×	×	×	×	×	×	×	–	–
South Atlantic															
Del.	–	×	×	×	×	×	×	×	×	×	×	×	×	×	–
D.C.	–	×	–	×	×	–	×	–	×	–	×	–	×	×	Kit preparation
Fla.	–	×	×	×	×	×	×	×	–	×	×	×	×	–	Budget managamant & control
Ga.	–	×	×	×	×	×	×	×	×	–	×	×	–	–	Outfit preparation
Md.	–	×	×	×	–	×	×	×	×	–	×	×	×	×	–
N.C.	–	×	–	×	–	–	×	×	×	×	–	×	×	–	–
S.C.	–	×	×	×	×	×	×	×	×	×	×	×	×	–	Safety, invantory of equip., instrumant repair
Va.	×	×	×	×	×	–	×	–	–	–	×	–	×	–	–
W. Va.	–	–	–	×	×	×	×	×	×	×	–	–	×	×	Ordering, maintaining inventory and distribution of biologics for state and county immunization programs.
East South Central															
Ala.	–	×	–	×	×	×	×	×	–	×	–	–	×	×	Inventory of equip., distribution of vaccines and GC madia.
Ky.	–	×	–	×	×	×	×	×	×	–	×	–	×	–	–
Miss.	–	×	–	×	×	–	×	–	–	–	–	–	–	–	–
Tenn.	–	–	–	×	×	×	×	×	×	×	×	×	×	×	–
West South Central															
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	×	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	–	×	–	–	–	×	×	×	–	–	–	×	×	–	–
Tex.	–	×	×	×	×	–	–	–	–	×	–	×	×	–	–
Mountain															
Ariz.	–	×	–	×	×	–	–	–	×	–	–	×	×	×	–
Colo.	–	×	–	×	×	–	–	–	–	–	–	–	×	–	Kit preparation
Ida.	×	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mont.	–	×	×	×	×	–	–	×	–	–	–	–	–	×	Acid radistillation; distilled/ deionized water preparation
Nev.	×	×	×	×	×	×	×	×	×	–	×	×	×	×	Buildings and grounds
N.M.	–	×	–	×	×	–	–	–	–	×	–	–	–	–	–
Utah	–	×	–	×	×	–	–	–	×	×	–	–	–	–	Madie QC and Safety Office
Wyo.	–	×	–	×	×	–	–	–	–	–	–	×	×	–	–
Pacific															
Alaska	–	×	–	×	×	–	×	×	–	×	–	–	×	×	–
Cal.	–	–	–	×	×	×	×	×	–	×	–	×	–	×	–
Hawaii	–	×	–	×	×	×	×	×	×	–	×	–	×	×	–
Ore.	–	×	–	×	×	–	–	–	–	–	–	–	–	–	–
Wash.	–	×	–	×	×	–	×	×	×	×	×	×	×	–	Data processing—fee for services
Territories															
Guam	×	–	–	×	×	–	–	–	–	–	–	–	–	×	–
P.R.	–	×	–	×	×	–	–	–	–	–	–	×	–	–	–
V.I.	×	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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